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VOLUMES IV AND IV-A.

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BALUCHISTAN DISTRICT GAZETTEER SERIES.

VOLUME IV.—TEXT.

BOLAN PASS
AND NUSHKI RAILWAY DISTRICT.

BY

R. HUGHES-BULLER, I. C. S.,

ASSISTED BY

RAI SÁHIB DIWÁN JAMIAT RAI,

Extra Assistant Commissioner.

Karachi:

PRINTED AT THE "MERCANTILE" STEAM PRESS.

1906.

PREFACE.

That portion of the Bolán Pass and Nushki Railway District which is included in Agency Territories is alone dealt with in the accompanying volume. An account of the Kúrds, Sahtakzais and other tribes, which are outside the tahsíldár's jurisdiction for political purposes, is included in the Gazetteer of Sarawán.

Most of the matter included in the volume is original, but, in dealing with the two most important subjects, viz., the distribution of the Kirta lands and the levy service, much assistance has been derived from reports written at various times by Major H. M. Temple, formerly Political Agent in Kalát. The constant disputes which have arisen over the Kirta land, and the magnitude of the levy service in such a relatively small area constitute the justification for the length at which these two subjects have been treated. It is hoped that the statement in Volume B, showing the actual distribution made of the Kirta land in October 1905, will be particularly useful to the District Officers.

As in the case of Quetta-Pishín, the material for the volume was collected by Rai Sáhib Diwán Jamiat Rai who personally visited the Bolán on more than one occasion. He had previously acquired an intimate acquaintance with local conditions when serving as Native Assistant in the Bolán in 1897. I take this opportunity of tendering him my acknowledgments for the great assistance he has rendered me. I am also indebted to the local officials for the promptness with which the numerous references, which had to be made, have been attended to.

The draft has been examined and passed by Major H. L. Showers, C. I. E., Political Agent, Kalát, whose courtesy in placing his office records at my disposal I also have to acknowledge.

QUETTA, 1905. R. HUGHES-BULLER.

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PHYSICAL ASPECTS.

The boundaries thus defined include an area of about 900 square miles. They have never been demarcated since the time that Sir Oliver St. John wrote, and there is some doubt as to what the limits actually are. Outside the catchment area of the Bolán river, the jurisdiction of the tahsíldár of the Bolán, at present (1905), extends to the Mushkáf-Bolán Railway between Nári Bank and the Sariáb railway crossing, about 10¼ miles from Quetta, and to the branch from Nári Bank to Rindli. The portion of the Nushki Railway between Spézand and Sohro Sham, the eastern boundary of the Chágai District, has been added to the District since 1903. On the railways, the area ceded by the Khán to the British Government comprises the land for one hundred feet on either side of the line, places occupied by buildings, and a quarter of a mile of land on either side of station buildings.

Configuration.

The Pass proper extends from Kolpur, known to the natives as the Kharlakai Kotal, to Rindli with a total length of about 54 miles* and varying breadth. The widest part is the Láléji plain. The elevation is about 500 feet above sea level at the mouth and about 5,900 at the head of the Pass. The general character of the District is mountainous, the mountains being intersected by long narrow valleys. The drainage is carried off to the south by the Bolán river and the Mach or Mushkáf hill torrent, and it is along these streams and their tributaries that the valleys lie. The Pass is narrow between Kharlakai Kotal and Mach, and, in places, enclosed within high mountains.

Below Mach lies the Láléji plain which is about 25 miles long from north to south, 6 miles wide at its broadest point, and has an elevation varying from 998 to 1,885 feet. It is covered with coarse gravel, which appears to have been entirely deposited by streams running from the surrounding hills, a large proportion of

*Kharlakai Kotal or Kolpur to Rindli is 60 miles by road.

the pebbles consisting of nummulitic limestone. It has a considerable ascent from south to north. At the southern end of the plain is Kirta, and below Kirta the Pass again narrows to a gorge known as the Afghán Ponzak, broadens a little near Drájbént or 'long flat,' and narrows again at the point known by the Bráhuis as Naoling, now traversed by the Kundaláni bridge. This point is said to be the southern boundary of the Kuchiks of Kirta, the flats below it being owned by the Garránis and Kúrds. PHYSICAL ASPECTS

The Gwandén or little Dasht and the Bhalla or great Dasht, also known as the Dasht-i-Bédaulat, through which the military road and the railway pass, lie to the north of the Kharlakai Kotal, and are broad flat mud plains consisting of fine soil probably of sub-aerial origin and very fertile when irrigated.

The mountains belong to the Central Bráhui Range, which occupies the northern part of Jhalawán and the whole of the Sarawán country in the Kalát State and parts of the Administered Areas of Baluchistán, and forms the upper portion of the great system to which Pottinger gave the name of the Bráhooick (Bráhuik) mountains. The hills that enclose the Bolán Pass, though forming a single system, bear separate names in different localities, the best known among them being the Maurjík or Maurjígh (2,820 feet) and Dán Kash ná Lath in the south; the Kohán Lath (3,307), with its northern extension separating the Láléji plain from the Mushkáf valley called the Panérband (2,081), the Takari or Trakri (3,950) across which a path goes from Píshi to the Sángán valley, the Chitarki (2,531), Kandhár (6,265), Pír Mard (8,150), Nodgwár (10,390), with Shúg (10,300) and Zén (9,310) on the east; and the Báchám (7,619), Márzubán (7,536), Kulli (7,341), Traku (6,899), Rúshi (6,726), Garai (4,962), Kándári (3,871) and Nágau hills on the west. Hills.

The hills that lie north of Mach, locally known as

PHYSICAL ASPECTS. Hills.

Khurásán, are claimed by the Kúrds and the Sahtakzais, and those to the south are owned by the Kuchik Baloch of Kirta, but the latter claim all the country up to the Kharlakai Kotal. Most of the hills bear little or no vegetation; but in the Khurásán hills *Pistacia mutica, Pistacia khanjak,* juniper, olive and wild almond are to be seen, with wild pomegranates in a few places. The few trees in the south include the *kúnar (Zizyphus jujuba), pír (Salvadora oleoides),* and *kalér (Capparis aphylla).*

Mr. G. L. Griesbach of the Geological Survey of India gives the following account of the geology of the hill ranges.*

"Entering the Bolán Pass from India, one has to traverse a number of more or less parallel ridges with tolerably easy passes leading over them. Dislocations, mostly vertical to the strike of the ranges, have prepared the course (in the first instance) for rivers, as for example the Bolán, the Nári, etc.

* * * * * *

"The geological structure, in spite of the numerous contortions and partial dislocations, is extremely simple. The western ridges and, at the same time, the highest ones, along which line is found the Takatu hill, are made up of cretaceous rocks, folded and raised into dome-shaped masses, showing a great deal of local disturbance. East of the highest part of the Bolán Pass, near Sir-i-Bolán (Sar-i-Bolán), and between that line and Kundaláni, eocene rocks of the nummulitic limestone facies prevail with a lower coal-bearing series (Ránikot beds). These beds have also undergone great lateral pressure and are folded, raised into dome-shaped masses, and in places inverted, making detailed examination a work of considerable difficulty. Eastward of this ground, and deposited quite unconformably against the upraised beds of the eocene series, the middle and upper tertiary rocks (Gáj

* *Memoirs of the Geological Survey of India,* Vol. XVIII, part I, of 1881.

and Manchhar groups) form several ridges of considerable height, which from afar off can easily be distinguished from the eocene limestone hill on the westward, presenting a totally different physical aspect and outline. PHYSICAL ASPECTS.

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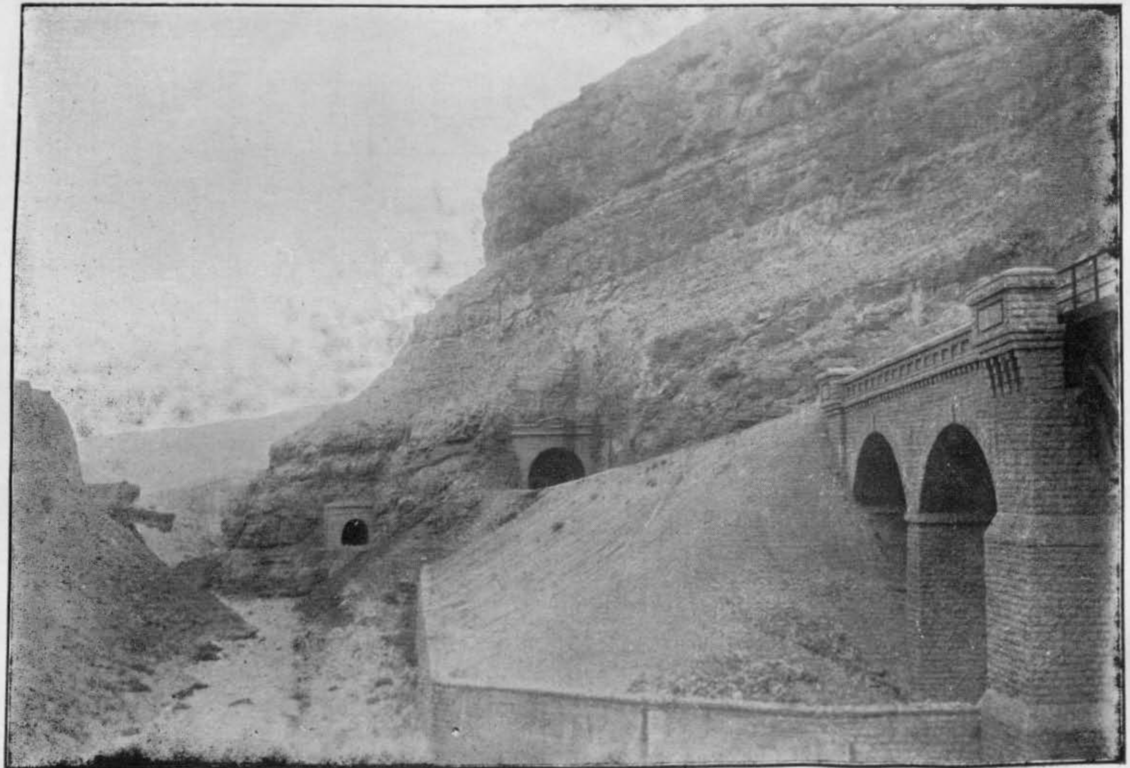
"I found that in the main structural features the area of the Bráhuik hills corresponds closely with the sections given by Mr. Blanford in his 'Western Sind,' and had it been possible to devote more time to the examination of the Bolán, no doubt all his sub-divisions of the tertiary series could have been identified. As it is, I am quite certain that the hills between the Indus plain and the Quetta valley are simply a continuation of the Kírthar range, and that very little difference will be found between the two sections."

Rivers.

Of the two rivers in the District, the *Bolán* and the Mushkáf, the former has by far the larger drainage area.

The Bolán river.

The Bolán river rises near Kolpur but the water only makes its first appearance at Sar-i-Bolán (36 miles from Quetta) and disappears again near Abigum where, however, a small flat or *thal* is first irrigated from its water. Near Bíbi Náni, the Bolán is joined from the west by the Sarawán river, known locally as the Dárdán, and also as the Kaur Bíbi Náni, and from this point a perennial stream appears. A channel for irrigation purposes is taken to Kirta village, a distance of about twelve miles, from the Chirián Búth, where a dam is erected. After flowing through the Láléji plain past Kirta, the river cuts its way through the Afghán Ponzak, and is joined at Kundaláni from the west by the perennial waters of the Kumbéla stream and emerges into the Dádhar plain near Pír Chauki. After passing through Dádhar, where the water is largely used for irrigation, the river is eventually dissipated into the great plain of Kachhi. The total length of the river from Kolpur to its exit in the plain is about 88 miles. The perennial water of the Kaur



A view of the Bolán Pass—Cascade bridge and tunnel.

recovered, but it also washed away a *ziárat* (shrine) or two belonging to the same Baloch advisers, a fact which seems to indicate that they had hardly appreciated the capacity of a Bolán flood themselves." The local people tell of many ravages caused by such floods, a party of twenty Bráhuis with their cattle and property having been carried off between Kundaláni and Kirta in 1882, and a similar fate befalling a party of half a dozen Bráhuis between Dozán and Hirok in 1896. PHYSICAL ASPECTS.

Mushkáf.

The Mushkáf hill torrent is composed by the confluence of four smaller torrents which rise from the Pír Mard, Kandhár, Urghuzzi and Jangihán hills, the river, on their junction, being known as the Matávni. In its southward course, it is joined by Rékhami, Much and Zai. Like the Bolán it is subject to heavy floods which are used for flood-crop cultivation in the tracts to the west of the Mushkáf railway station.

Scenery.

It seems to the traveller on entering the Bolán as if the scenery was devoid of everything save stones, rocks and sand-coloured hills. The mountains, towering into the distance, rise hard, relentless, and grey against the sky. Brown, yellow, and grey, unmodified by verdure, are the predominant colours of the rocks, of the dry water courses, and of the general landscape. The only signs of life are the camels, goats and sheep travelling to and from the plains or the little tufted birds, sand-coloured like the earth in which they build. In this scene of monotonous desolation, the only redeeming features are the emerald green of the cultivation round Kirta and the orchards of Mach and Hirok.

Geology.

The rocks forming the Bolán Pass and the neighbouring regions consist of a varied series including jurassic (lower and upper cretaceous) strata; basalt flows of the Deccan trap age; Gházij and Spíntangi beds (middle eocene); lower Nári (upper eocene); lower, middle and upper Siwáliks (middle and upper miocene); and a large

PHYSICAL ASPECTS. accumulation of recent and sub-recent terrestrial deposits. The Gházij beds contain coal-seams that have been worked. Illustrated descriptions of the Bolán Pass will be found in Mr. Griesbach's "Geology of the Bolán Pass", and Dr. Blanford's "Hills between Quetta and Déra Gházi Khán", (*Memoirs of the Geological Survey of India*, Volumes XVIII, part 1, and XX, part 2). A less modern account is that given by Dr. Cook in the *Journal of the Medical and Physical Society* of Bombay, 1859.

Botany. In 1840, Dr. Cook wrote of the vegetation: "A rank grass exists in the valley near Kundaláni and at Kirta. The mountains are excessively bare, and with the exception of the last few miles beyond Sar-i-Bolán, where a few straggling trees are found, produce nothing that can be used as firewood. Small herbs and thorny plants, on which the camels feed, are sprinkled over the valleys.

"In the ravines is found a plant called *pénfilli (píun phulli)* bearing a yellow berry having very little taste, which the natives use as a medicine in intermittent fevers."

The vegetation* is practically that of south-eastern Baluchistán generally, and consists of a repellent scrub, made up of such plants as *Capparis aphylla, Periploca aphylla, Boucerosia, Tecoma undulata, Acanthodium spicatum, Prosopis spicigera, Rhazya stricta, Withania coagulans, W. somnifera, Zizyphus jujuba, Z. nummularia, Salvadora oleoides, Calotropis procera, Caragana polyacantha, Acacia Farnesiana, A. rupestris, A. Jacquemontii, Calligonum polygonoides, Crotalaria Burhia, Leptadenia Spartium, Taverniera nummularia, Alhagi camelorum.* On the surrounding hills occur pistachio (*gwan*) and a little olive (*hass*). Since the British occupation *kikar (Acacia Arabica), jag (Dalbergia sissoo), sirín (Acacia speciosa), ním (Melia Azadirachta),* and *pípal (Ficus religiosa)* have been successfully planted at Rindli

* From notes kindly contributed by the Director, Botanical Survey of India.

and willows at a few other places along water channels in the Pass. Oranges, lemons, sweet limes, plantains, figs, peaches, pears and the mulberry thrive at Rindli, and there are grapes, walnuts, almonds, pomegranates, plums, oranges, limes and apples at Mach. A list of the more common plants and trees with their vernacular names is given in appendix I.

PHYSICAL ASPECTS.

Fauna.

None of the wild animals of the Pass merit special notice. Sisi and chikor are found in the upper parts of the Pass, and pigeons can be shot in the southern parts near Kundaláni and Rindli. Quail (*bharu*) are to be found at the latter place in the spring. A few hare and ravine deer occur in the Láléji plain. Fish over 20 lb. in weight have been caught with the rod in the lower reaches of the Bolán river. Mountain sheep are met with in the hills between Rindli and Mach, and leopards are occasionally found. Among other animals are wolves, hyenas, foxes and jackals. Porcupines (*síkhún*) are numerous and do much damage to the *juári* crop.

Climate, temperature and rainfall.

The elevation of the District varies from about 463 feet at Rindli to 3,246 feet at Mach and 5,793 feet at Dasht, and the climate varies with the height. In the greater part of the area, summer and winter are the only well marked seasons, the former including the months locally known as *wésákh, jéth, arhar, sánwan* or *basham, bádré,* and *assún* corresponding with April to September, and the latter *katti, mangir, poh, mángh, phaggunr* and *chétr* which correspond with October to March. *Sánwan* and *bádré,* July and August, are the hottest months and *mángh* and *phaggunr*, January and February, the coldest. In summer, the heat in the lower parts of the Pass is trying, a shade temperature of 117° having been recorded at Kundaláni and of 122° at Bíbi Náni during May and June. The mean temperature at Mach between the 1st of April and 30th of September is 108-117° and between the 1st of October and 31st of March 49-83°. Above Mach the winter,

PHYSICAL ASPECTS.

particularly at Kolpur and in the Dasht, is very trying, especially when a fall of snow is followed by a heavy wind, which blows through the passes at Kolpur and Darwáza in blasts of icy bitterness.

The average annual rainfall in the upper part of the Pass is about 7·64 inches the greater part of which is received between December and March.

In Panír (or Panérband) the average of nine years is about 4 inches, the highest amounts being recorded in the summer months, April to September, the average in July being 62 cents. and in August 75. Details by months for each of the three stations, Mach, Kolpur and Panérband are given in table I, Vol. B.

The north wind already referred to, known to the natives as *gorích*, constantly prevails, but is strongest in January, February and March, when it sometimes damages the wheat crop. A south wind, called *nambi* or *dakhanr*, prevails in *jéth* (May) and *arhar* (June) and is considered beneficial both to human beings and to the crops. A south-west wind, which is believed to check the rain, is known as the *pahli wéch* or *pari wéch*; and blows in June and July. A north-east breeze (*saṃína gwát*) is believed to be the precursor of the summer and autumn rains.

HISTORY.

Historically the chief interest of the Bolán Pass is to be found in the succession of migrant hordes, invaders, and merchants who have traversed it on their way to and fro between India and central Asia.

According to Lassen, it was one of the routes used by the Aryans in their earliest migrations to the Indus valley, and doubtless it continued to contribute its stream of migrants to the population of India till the fifteenth century when the Pass appears for a moment in authentic history as the site of a battle between the Arghúns and the rulers of Sind. The great Arghún chief, Zunnún Bég, on being appointed to the governorship of Kandahár by

Sultán Husain Mirza of Herát, annexed Pishing, Shál and Mastung to the territories under his control, while his sons Sháh Bég and Muhammad Bég descended the Bolán Pass and added Sibi to their father's possessions. Sibi was at this time under Jám Nanda, otherwise known as Nizám-ud-dín, of the Samma dynasty, and he sent a strong force under one Darya Khán, also known as Mubárak Khán, to expel the intruders. Mubárak Khán came upon the Arghúns at Jalogír near Bíbi Náni, inflicted a crushing defeat on them and killed their leader, Muhammad Bég. This was in 1486, A. D. HISTORY.

In 1653, during the reign of the Emperor Sháh Jahán, when Dára Shakoh led an army to capture Kandahár, his heavy guns were sent round by the Bolán Pass while the prince himself marched through Duki and Pishín. Nádir Sháh also used the route on his return from India via Lárkána and Kachhi in 1740.

The connection of the Bráhuis with the Pass.

The first occasion on which we hear of the Bolán being used by the Bráhuis is when Mír Ahmad I of Kalát (1666-7 to 1695-6) followed it in his attacks on the Bárúzais of Sibi. Sixteen of these expeditions were unsuccessful, but the seventeenth ended in a victory for the Bráhuis at the shrine of Shaikh Katé near Nári Bank station. The Bárúzais retaliated by taking a force through the Bolán to Johán via Narmuk, but peace was eventually made. For centuries the pass had been a favourite raiding ground for the neighbouring tribes, and Afghán subjects, trading with India, had been constantly molested. To put an end to these occurrences, Ahmad Sháh is alleged to have made Nasír Khán I of Kalát responsible for the blood compensation of lives lost in the Bolán. Nasír Khán either did not wish to undertake the task or found it impossible, with the result that he revolted, whereupon an army was sent against him from Kandahár in 1756 which besieged Kalát and eventually brought the recalcitrant ruler to terms, one of which

HISTORY. is said to have been his being relieved of responsibility for the protection of the Bolán. The Kháns, however, appear to have retained their connection with this important artery of communication as in the following reign, that of Mahmúd Khán I (1793-4 to 1816-7) Sháh Shuja-ul-mulk was conducted safely through the Pass to Shikárpur to crush a revolt headed by Bíbi Zainab, the Khán's aunt, in alliance with the Tálpur Mírs of Sind. The expedition was successful and large arrears of tribute were collected by the Sháh. At this time Kachhi was in the hands of a very capable man, Mír Mustafa Khán, brother of Mahmúd Khán I, and he is said to have established his power so successfully "that the Bolán Pass resembled the bazar of Kalát in safety."*

Sháh Shujá-ul-mulk crossed the Pass on two other occasions, first in 1834, after he had seized Shikárpur and was marching on Kandahár at the head of an army of 22,000 Afgháns and Hindustánis only to be defeated in a pitched battle with Dost Muhammad Khán, and again in 1839, at the time of the first Afghán war.

Previous to the first Afghán war, about 1827, Masson had passed through the Bolán and had found the road very unsafe, the men of the caravan with which he was travelling keeping a very strict watch at night. Owing to the exposure of the Pass to perpetual depredations there was hardly any cultivation.

The first Afghán war. On the outbreak of the first Afghán war, the Bengal Column of the Army of the Indus under Sir W. Cotton marched through the Pass halting at Kirta, Bíbi Náni, Ab-i-gum and Sar-i-Bolán, and it was soon followed by the Bombay Column. The Pass was perpetually infested by bands of marauders and parties of hill-tribes often appeared and proved very troublesome, causing much bloodshed and great loss of cattle and property. The

* G. P. Tate. *Kalát*, page 44—Calcutta, 1896.

chief offenders appear to have been the Marris, Bangulzais, Kúrds and some of the Kákars. HISTORY.

It appears that the originators of the attacks made by the Bangulzais and Kúrds were two brothers of Dád Muhammad, the former Ghilzai minister of Mehráb Khan of Kalát, who to revenge themselves for the murder of their brother, had determined to implicate the Khán by inducing the Kúrds and Bangulzais to attack the British forces. The brothers had married among the Bangulzais. Mehráb Khán was accused, at the time, of treachery to the British and the occurrences in the Bolán were among the reasons which led to the despatch of General Willshire's column to take Kalát at the end of the year. But, though urged to do so, Mehráb Khán appears to have steadily refused to put any obstacle in the way of the march of the British army.

Nor were the difficulties of the British forces confined to the depredations of the tribes alone, for in 1841 a party of Skinner's Horse under Captain Haldane had just entered the narrowest part of the Pass above Sar-i-Bolán and on coming to a turn were met by one of those tremendous floods for which the Bolán has since become so famous. Men, horses, camels etc. were swept away and dashed to pieces against projecting rocks over which the water flowed 20 feet high. No assistance could be afforded as the stream ran faster than a horse could gallop. The loss of life was thirty-three men and 101 animals, besides property worth Rs. 12,500.

In October, 1842, the troops finally evacuated the pass and returned to India.

Under the terms of the treaty of 1854 with Kalát, Nasír Khán II bound himself to keep open all trade routes, a policy which was constantly impressed on him and his successor, Mír Khudádád, by the British Government. The treaty, among other things, provided for a reduction of duty from R. 1 to 8 annas per maund, by

Extension of British control.

HISTORY. which the revenues of the State were reduced in a way the Khán could ill afford.

Mír Khudádád, however, involved as he constantly was in quarrels with his tribesmen, found it impossible to keep order, and raids and forays were the order of the day. In October 1871, a rebellion broke out in the Sarawán country which resulted in some merchants being plundered in the Pass. An unsuccessful attempt at a settlement was made early in 1873 by Sir William Merewether when the question of making payments of Rs. 6,000 per annum to the Mazaráni Marris of the Bolán and of Rs. 12,000 to the Sarawán tribesmen was mooted. About the same time, the Mazaráni Marris, who had been entrusted with the protection of the Pass, were attacked by the Bráhui Méngals and a chronic state of discord reigned. The Political Agent was withdrawn from Kalát in the spring of the same year, and in the winter, outrages were committed on British messengers in and near the Pass.

In 1875 it was decided to depute Captain Sandeman to enquire into the state of affairs and to bring about an amicable settlement, and he was at the same time instructed to report what arrangements could be made for the protection of trade via the Bolán. The causes of the prevailing anarchy were discovered by this expedition and in the following year Captain Sandeman proceeded on his second mission. He found some 6,000 men and 5,000 camels, taking merchandise valued at 6 or 7 lakhs, prevented from entering the Pass through fear of molestation. Even the inhabitants of the village of Kirta had deserted the place owing to the marauding expeditions of the Marris. The caravans accompanied the mission, the Pass being thus re-opened, and the whole question of protecting the trade passing through it was discussed with Mír Khudádád Khán on the arrival of the mission at Mastung.* An agreement

* See memorandum at page 220 of *Baluchistán Blue Book*, No. 2.

was arrived at by which the control of the arrangements was placed in the hands of the Kúrd chief under the general supervision of the Raisáni chief. The Khán was to continue to levy transit-dues (*sung*) at Quetta and Dádhar as before, but the escort fees (*badraka*) were to be devoted to the maintenance of armed guards under the Kúrd chief. This was the commencement of the Bolán Levy Service, a full account of which will be found elsewhere. HISTORY

The second Afghán war.

The treaty of 1876 contained no special reference to the Pass, but its effects were very shortly realized on the outbreak of the second war with Afghánistán (1878-81). Early in November, 1878, General Biddulph's column reached Quetta through the Bolán Pass, and marched on to Pishín, and it was soon followed by the main body of the Kandahár Field Force under Sir Donald Stewart. In 1880, General Burrow's brigade passed through the Bolán to meet Ayúb Khán in the disastrous engagement of Maiwand and reinforcements under General Phayre followed him to Kandahár. The railway was completed to Rindli in May 1882, and vast quantities of stores were pushed up through the Pass to the front without the slightest opposition from the tribesmen.

At the close of the campaign the Kábul-Kandahár Field Force marched back to India through Quetta and the Bolán, and Lord Roberts gives the following description of the scene. "Riding through the Bolán Pass, I overtook most of the regiments of the Kábul-Kandahár force marching towards Sibi, thence to disperse to their respective destinations. As I parted with each corps in turn, its band played *Auld Lang Syne*, and I have never since heard that memory-stirring air without its bringing before my mind's eye the last view I had of the Kábul-Kandahár Field Force. I fancy myself crossing and recrossing the river which winds through the pass: I hear the martial beat of drums and plaintive music of the pipes; and I see Riflemen and Gurkhas, Highlanders

HISTORY. and Sikhs, guns and horses, camels and mules, with the endless following of the Indian army, winding through the narrow gorges, or over the interminable boulders which made the passage of the Bolán so difficult to man and beast."*

Cession of the Pass to the British Government

With the extension of British control over Baluchistán, the Harnai route soon gained in popularity over the Bolán, owing to freedom from taxation, the safety enjoyed by the traders, and the facilities for finding beasts of burden on it and trade began to desert the latter. This resulted in a loss to the Khán in transit dues, and negotiations were, therefore, opened for the transfer of the Bolán to the British Government, and enquiries made regarding the amounts realized by the Khán between 1876 and 1881 as transit dues and by the tribesmen as escort fees. As a result, the Government agreed to purchase the Khán's right to levy tolls for a sum of Rs. 30,000 per annum, while a payment of Rs. 3,000 per annum to Sardár Asad Khán and Rs. 10,000 per annum to Sardár Yár Muhammad Kúrd, was authorised on account of their shares of the escort fees. An agreement dated June 8, 1883, was made with Mír Khudádád Khán of Kalát by which jurisdiction in the Bolán Pass was transferred to the British Government. Clauses 2 to 4 of this agreement run as follows:—

(2.) "His Highness the Khán hereby transfers to the British Government absolutely, with effect from the 1st day of April, 1883, all his rights to levy dues or tolls on the trade travelling through the Bolán to and from British India and Afghánistán, as well as to and from Kachhi and Khurásán, as provided by the treaty of 1854 or on the trade travelling to and from British India and the districts of Sibi, Quetta and Pishín.

(3.) "In return for the concession last mentioned the

Forty-one years in India by Field Marshal Lord Roberts, p. 373.

British Government agree to pay to His Highness the Khán the sum of Rs. 30,000 (thirty thousand) per annum free of all deductions, in two half yearly instalments on the 1st October and 1st April of each year beginning from the 1st October, 1883. In addition, the Viceroy and Governor-General agrees to pay to the Sarawán and Kúrd Sardárs a fixed sum yearly for certain service in the Pass representing their shares respectively of the transit and escort fees. HISTORY.

(4.) "In order to facilitate the arrangements of the British Government for the collection of tolls on its own behalf in the Bolán Pass, His Highness the Khán hereby cedes to the British Government full civil and criminal jurisdiction and all other powers of administration within the limits of the said Pass and within the land purchased by the British Government at Rindli for a railway station and other buildings."

Details of the distribution of the tribal payments will be found in the section on Levies. Tolls were levied at reduced rates up to September, 1884, when they were abolished.

Construction of railway.

The Pass once more came into prominence at the time of the Panjdeh incident in 1885, and vast numbers of camels were employed in carrying commissariat stores to Quetta. The difficulties encountered proved the urgent necessity of a railway, and orders were issued for the construction of a surface line through the Pass. The Bolán railway was completed to Quetta by the end of July, 1886, but the line was much damaged in 1889-90 and the construction of the Mushkáf-Bolán Railway was taken in hand in the beginning of 1892 and opened for traffic in 1897.

Cession of jurisdiction on the railway.

In 1894, the Khán of Kalát granted the British Government the right to occupy and administer, and to

HISTORY. exercise full civil and criminal jurisdiction over the lands occupied and traversed by the Mushkáf-Bolán Railway, and they were included in the Bolán Pass District in August, 1896*, all enactments, which had been deemed in force in the Bolán Pass District by virtue of their application, under section 4, sub-section (2) of the Baluchistán Agency Laws Law, 1890, being declared to be applicable to them.†

The area of the District was further extended by an agreement dated May 12, 1903, in which the Khán ceded to the British Government full and exclusive power and jurisdiction of every kind over the lands in the Kalát State, which were or might afterwards be occupied by the Nushki Railway. The title of the District was changed to that of the "Bolán Pass and Nushki Railway District" in October, 1903.

Administrative arrangements and changes.

On jurisdiction being acquired by the British Government, the Pass was placed in charge of the Political Agent of the Sibi (old Thal-Chotiali) District, but in 1885 it was transferred temporarily to the charge of the Political Agent, Quetta-Pishín. It was soon, however, re-transferred to Sibi, but was subsequently handed over to the Political Agent, Kalát, under whom it remained until February 1887. It was now once more made over to the Political Agent, Quetta-Pishín, and a Native Assistant was temporarily deputed for judicial work. In May 1888, the administrative charge of the Pass was made over to the Political Agent, Kalát, and the appointment of a Native Assistant was made permanent in August 1890. It remained under him up to 1895, when it was transferred to the joint jurisdiction of the Political Agents, Quetta-Pishín, and Southern Baluchistán, and was finally made over to the Kalát

* Notification by the Agent to the Governor-General in Baluchistán, No. 5900, dated August 20, 1896.

† Notification by Government of India, F. D., No. 1460 (a) E. A., dated August 20, 1896.

Agency in February 1898, since which time it has remained with the latter. In subsequent years, owing to the completion of the railway works, the alien population almost entirely withdrew and there was a corresponding reduction in the judicial and administrative work. For this reason, the Native Assistant was transferred to the head quarters of the Kalát Agency in June, 1902, and a tahsíldár was appointed in his place. HISTORY.

Archaeology

There are no structures of particular archaeological interest in the Pass. Heaps of mud mixed with shingle are to be seen running for a considerable distance to the north of the Manryár quarter of the Kirta village and local tradition asserts that these are the ruins of two ancient *kárézes* built by the Gabrs or Zoroastrians.

About 5 miles to the north of Kirta is an old mound (*damb*) locally named after Dallu Rai, a semi-mythical king of Sind. Similar mounds in Sibi, Pishín and Kachhi are assigned to the same monarch. The circumference of this mound is about a quarter of a mile, and the highest point, which was probably a *míri* or fort is about 150 feet above the level of the surrounding country. The mound is strewn with stones and pieces of pottery similar to those found at the Riása Ghundi in Pishín. On the eastern side of the mound are walls of burnt brick, measuring 1′ 6″ × 3″.

About a mile to the west of Kirta Kalán in the Láléji plain, is the Dostén *gumbaz* or tomb. Dostén was killed by Sardár Tangav, Kuchik, his cousin, who subsequently had the tomb erected over his grave, eleven generations ago (1905).

POPULATION.

Ethnographical history.

Of the earliest inhabitants of the Pass, nothing whatever is known. That the people were at one time Zoroastrians by religion, may be inferred from the prevalent traditions as to the construction of the ancient *kárézes* near the Kirta village, and the masonry aqueduct from the Gháib Pír spring to the Khajúri village in Sarawán about 6 miles from Bíbi Náni indicates that they had

POPULATION.

attained a fairly high degree of civilization. The present inhabitants, the Kuchiks, assert their descent from Hot, one of the five mythical ancestors of the Baloch. In former times the Kuchiks are said to have not only occupied the Bolán but also Dasht, Marav and Lop in Sarawán. They lost Dasht and Marav to the Kúrds in the time of their headman Lashkar Khán I and the Kalois took Lop from them in the time of their headman, Bashku II. If the story of the Kuchiks is correct that they arrived in the Bolán with Mír Chákar, their occupation must date from the fifteenth or sixteenth century.

Census.

The first regular census of the District, the results of which have been published, was carried out in 1901, and was synchronous in all the railway limits and at Mach and Kirta. The tribes living in the Pass, outside the jurisdiction of the tahsíldár, such as the Kúrds, Sahtakzais and Méngals, were enumerated with their parent tribes in Kalát and included in the Sarawán figures. Similarly the levies at various posts were included in the tribes to which the men belonged. The remarks that follow in this section are accordingly confined to the population enumerated in the Pass more especially to the Kuchiks, the remainder being dealt with in the Gazetteer of Sarawan.

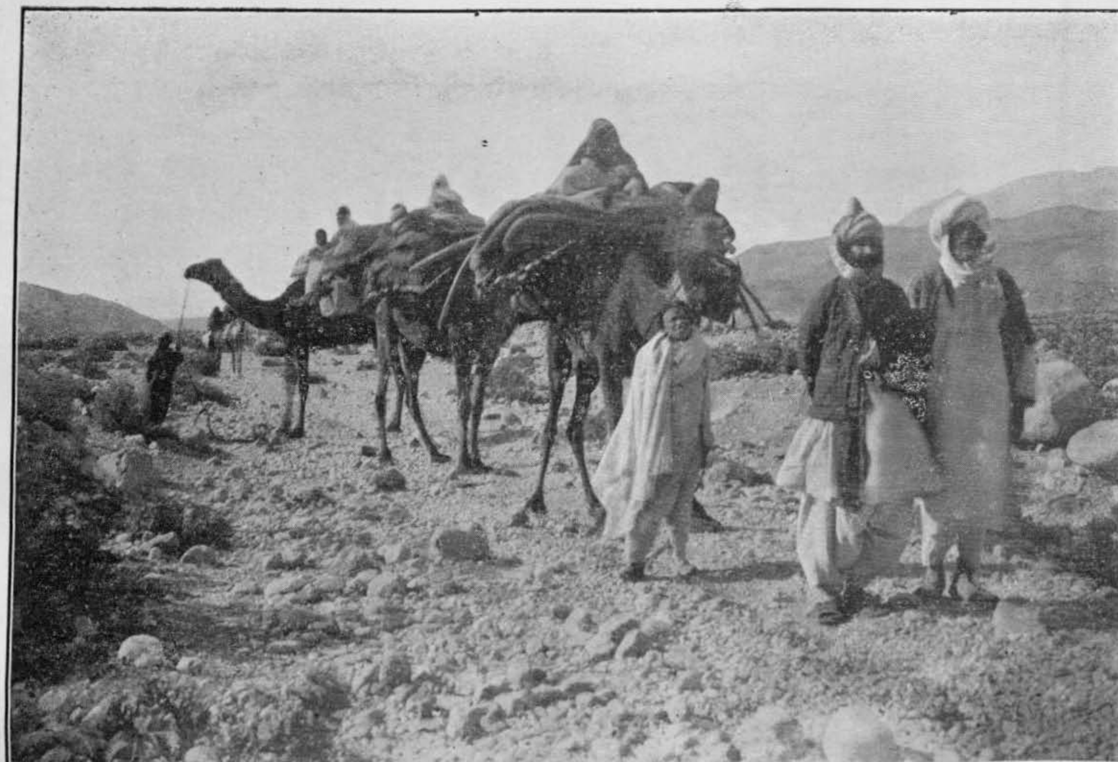
Density and villages.

A detailed statement of the principal census statistics will be found in table II, Vol. B. According to the census of 1901, the total population was 1,936 of whom 1,483 were males and 453 females.* The population per square mile was 2, and that per house a little less than 3. The number of villages recorded in the census was 8 which included, Mach, the head quarters station of the tahsíldár, and the stations at Kolpur, Hirok, Abigum, Píshi, Panír, and Mushkáf.

Kirta village.

The only village occupied by the people of the country was Kirta. It is made up of three hamlets, the oldest and biggest being the central one known as Kirta

* The Nushki Railway portion is not included in these figures.



A Brahui family returning from Kachhi.

Kalán or Shakar Khán Shahr, the southern quarter as Tamáz Khán Shahr and the northern as Nabíábád Manryár. In 1901, it possessed a population of 477 persons, of whom 241 were males and 236 females. The village consists (1905), like most others in Baluchistán, of mud hovels; it possesses a couple of *baniás'* shops, a *patwár khána*, and the remains of a civil bungalow. It has two *masjids* in one of which children of both sexes are taught the Korán and elementary Persian. The water supply is from springs, the Bolán river, and wells; there is no arrangement for sanitation.

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Growth of population.

Previous to 1901, no regular census of the District had been attempted, but in 1891 the population of the Pass was estimated at 1,557 souls, consisting chiefly of the labouring and trading classes. The village of Kirta was not enumerated nor did the figures include the Railway population. No reliable figures are, therefore, available illustrating the growth of population, but some idea of the undoubted increase which has taken place may be formed from the *tírs* or shares into which the land and water of Kirta are divided for each harvest according to the number of adult males, a system which will be dealt with in detail elsewhere. Before the British occupation these *tírs* are stated to have seldom exceeded 15, while in the distribution for the *kharíf* harvest of 1905, the number of shares was 39. It may be assumed from this that the population of Kirta has more than doubled, a result which should not be surprising, when the fact is remembered that Kirta had been almost depopulated on Sir Robert Sandeman's first arrival in the Bolán in 1875.

Migration.

The habits of the Kuchiks are settled; only those who own lands in Dádhar move to that *niábat* for short periods of the year, while those who possess little land at Kirta proceed to Kachhi and Sind in the winter for agricultural labour. Large numbers of Bráhuis traverse the Pass on their periodical moves from the highlands to

POPULATION.

Kachhi and back, and it is crowded with them during October and November, and March and April.

Immigrants.

The Mazaráni Marris in pre-British days often visited the District to pasture their flocks, and, as has been noted in the section on **History**, were considered of sufficient importance in the eighties to be given service in the levies. Most of them have now moved back to the Marri country, but a few, belonging to the groups noted in the marginal table, have been amalgamated with the Bangulzais and pay *khaf*, in the shape of a sheep per flock to the Bangulzai *wadéra*. The Mubárakzai Méngals, who cultivate lands in Dasht, and the Nákámzais visit the District periodically in search of pasture.

Chapráni.
Tangáni.
Rindwáni.
Bédáni.
Kungráni.

In 1901, 39 persons were recorded as having been born in British and Administered Territory in Baluchistán, and 551, of whom 293 were males and 258 females, in the Kalát State. The number of persons who were born in India outside Baluchistán, was 1,077, of whom 901 were males and 176 females; 47 persons, viz. 41 males and 6 females, were born in Native States in India outside Baluchistán,* and 211, 209 males and 2 females, were born in Afghánistán. The province in India, from which most immigrants come, is the Punjab (833), followed by the United Provinces (189), and Sind (45). The immigrants from the Punjab are drawn principally from the Districts noted in the margin.

Hoshiárpur (117), Amritsar (92), Siálkot (92), Gujrát (89), Ráwalpindi (63), Jullundur (56), Jhelum (44), Gurdáspur (58), Gujranwála (44).

Age statistics, vital statistics, infant mortality and infirmities.

The census figures showed that in 1901 most of the people, both men and women, were between the ages of 20 to 40, the former representing about 63 per cent. of the male population and the latter about 42 per cent. of the female population. The disparity between the

* *Census of India*, 1901, Vol. V. A., table XI.

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males and females may be accounted for by the presence of numbers of immigrants who are employed on the railway, most of whom are not accompanied by their wives.

Vital statistics are not recorded. A summary enquiry, made by the tahsíldár at Kirta in 1905 regarding the birth and death rate, indicated that 1·8 per cent. of births and 0·4 per cent. of deaths on the total population of the village had occurred during the preceding 12 months. The proportion of births among males and females was as 8 to 1. Apparently infant mortality is not heavy.

No infirmities were recorded in 1901. In 1905, there was one boy at Kirta who had been born deaf and dumb.

Comparative number of the sexes, and civil condition.

The disproportion of women to men in 1901, viz., 453 women to 1,483 men, was large, the reason for which has already been explained. Among the population whose birth place was in India beyond Baluchistán, the proportion was 901 males to 176 females. At Kirta, the number of the sexes was almost equal.

Of the total population, 705 were married males and 232 married females, 117 were widowers and 48 widows, 661 unmarried males and 173 unmarried females. It is satisfactory to note that all the widowed persons, male and female, were over twenty years of age. Only six females and one male had been married in the age period up to 12 years, and three males and four females in the period from 12 to 15, facts which indicate that early marriage is not common, an inference which is further supported by the fact that 344 males or about 52 per cent. of the total unmarried males were aged between twenty and forty. Marriage is generally delayed because a cultivator requires a full grown woman as his wife, who, besides performing domestic duties, can help him in the fields.

So far as can be ascertained, polygamy is rare except among the well-to-do, though the people have no objection

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to a plurality of wives up to the limit of four as prescribed by Muhammadan Law. The wealthy take more wives than one either for pleasure, or, sometimes, for the sake of offspring. In the Kirta village the percentage of married men having more wives than one is about 8·3. Marriage with near relations is preferred as the expense is less, and the common ties among the group are thereby drawn closer. Among the Kuchiks, the Bangulánis, who are the *sardárkhél* or chief's family, are endogamous to some extent. They also never give their daughters in marriage to other Kuchiks nor to Afgháns, but take other Kuchik girls in marriage. Their girls, however, have been married among the leading families of Bráhuis, viz. Kúrds, Lehris and Bangulzais.

Marriage ceremonies.

Betrothals of children, not yet born, are known among the better classes, but with the poorer classes, the bridegroom is generally above twenty and the bride four years his junior. Ordinarily a man has nothing to say in the selection of his bride, but when his parents wish him to marry they look for a suitable girl and the first step taken is to send a man (*wakíl*) to the parents of the girl to sound them, and if they give their consent, the father of the bridegroom with some of his relatives (*mér*) go to the girl's father, and make a formal request for the hand of the girl, on the acceptance of which prayers (*fáteh*) are offered and sweets are distributed. The prayers render the betrothal (*sáng*) binding. After a couple of days, the bridegroom presents to the bride a wrapper (*sari*) and a ring (*mundri*), the latter being put on the index finger of the bride's right hand. When the marriage (*sír*) is to be celebrated, the father or guardian of the bridegroom with a few friends and relations visits the bride's parents, and places a sum of money varying from Rs. 30 to Rs. 50 in a plate. This is called *lab*; it is not treated as bride-price but the gift is regarded as a mark of honour to the bride's parents.

The money is retained by the latter, a date is fixed, and *nikáh* is performed, in accordance with the Muhammadan rite, at the bride's house. Besides the *lab*, the bridegroom has to supply the father of the girl with provisions for the entertainment of the wedding guests. During the interval between betrothal and marriage, he also has to find a dress for the bride once every three months, comprising a wrapper (*sari*), shirt (*pashk*), and trousers (*shalwár*), with sometimes also a pair of shoes. In case of a widow's remarriage no ceremonies except the *nikáh* are observed. POPULATION.

Bride-price and dower.

Bride-price, in the sense it is used among the Afgháns, is not known among the Kuchiks, and the only payment made is the *lab* mentioned above. Dower or *haq-i-mahr* is recognised, the usual amount being Rs. 7; it is fixed at the time of the *nikáh*, and is either paid on the spot or is presented by the bride to the husband. In place of *haq-i-mahr*, the husband, sometimes, presents his wife with a share of the merit (*sawáb*), which he hopes to obtain after death by giving alms from his hearth in his life time. This share is generally one-third and is known as *séak*, and the gift saves the husband from the onus of giving any dower upon earth.

As in other parts of Baluchistán, the system of exchange of girls (*charpa chari*) prevails.

Marriage expenses.

The marriage expenses vary according to the position of the contracting parties, the average amount which falls on the bridegroom's party being about Rs. 120. The bride's parents generally present her with a dress, a few silver ornaments and articles of household furniture, which cost them from Rs. 30 to Rs. 40.

Divorce.

The usual reasons for divorce are the disagreeable temper of the woman and suspected immorality; the ordinary method of divorce is to throw three stones or clods *(sain déagh)* into the lap of the father or other guardian of the woman in the presence of two witnesses,

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the words "I divorce you" being repeated thrice at the same time. The divorced woman returns to her parents, carries with her the presents (*dáj*) made to her by her parents at the time of the wedding, and can, in consultation with them, marry any one she likes. If she has been divorced on account of suspected misconduct, she usually finds it difficult to secure a respectable husband. If a woman's husband is proved to be impotent, her parents can obtain a divorce through the intervention of the tribal headmen.

Widows.

Among the Kuchiks, as among the Marris and Bugtis, a woman on the death of her husband is permitted to return to her parents, taking her *dáj*, but leaving all other property and the children in the custody of her husband's male heirs. She is at liberty to remarry any one she likes with the consent of her parents, only a small amount of *lab* being demanded. If she elects to stay in the house of her deceased husband, she is entitled to maintenance.

Penalties of adultery.

Before the British occupation death was the punishment of a faithless wife, caught *flagrante delicto*, and of her paramour, the husband and any of his male relations and the woman's father, brother, or other guardian being entitled to constitute himself the executioner. An interesting case, illustrative of the custom, occurred in 1890, when Kutab Khán and Chutta, Siáhpáds, and Bakhshi, Muhammad Sháhi, killed Murád Khán, Chotai, and Musammát Khair Khátún wife of Murád Ali, Siáhpád, at Kirta. The case was directed to be dealt with under the Frontier Crimes Regulation, and a *jirga* of leading chiefs heard the case and found that adultery had been committed. In awarding a punishment which was light, it was noted that the murder of both parties was not regarded as a reprehensible crime by the people of the country and that the accused did not think that they had committed a crime at all, and were supported in this

opinion by the popular voice of the country.* POPULATION.

In pre-British days, if both the adulteress and her seducer were killed, matters ended there. An adulteress seldom escaped death, but if the seducer managed to escape, the case against him was settled by the tribal headmen. The penalty usually exacted from him was a girl (*sáng*) for the injured husband, and Rs. 100 in cash and arms (the latter penalty being locally known as *sirén* in Baluchi and *mukh* in Bráhui) for the woman's father. The custom has in recent years been somewhat modified by the imposition of fines by Government, while, if a girl (*sáng*) is not forthcoming, a cash payment of Rs. 200, is substituted. The penalty, however, varies with the circumstances of the case; in a case which occurred in 1900 and in which the adulterer escaped, the compensation payable according to the Baloch custom was stated by the *jirga* to be Rs. 1,500, but this amount was subsequently reduced to Rs. 1,200, of which Rs. 400 were paid to the injured husband, and Rs. 800 to the father of the adulteress, this being the usual proportion in which compensation in such cases is divided. A further fine of Rs 200 was imposed by the Political Agent when confirming the award.

The status of woman and rights to property.

The position of women is one of great degradation, girls being not infrequently awarded as part compensation for blood. A wife must not only carry water, prepare food and attend to all ordinary domestic duties, but she must take the flocks out to graze, groom her husband's horse and assist in cultivation. She has no rights in property except to the presents given her by her parents at her wedding, which she may carry away when divorced. As a widow, too, she is only entitled to subsistence allowance from her late husband's estate so long as she does not return to her parents or is remarried.

* *Administration Report of the Baluchistán Agency*, for 1890-91, p. p. 95-96.

POPULATION. Language.

The people in the upper part of the Bolán Pass speak Bráhui, while the indigenous people of Kirta speak Baluchi. The speakers of the latter language were 494 in 1901 or about 25 per cent. of the total population. Those speaking Pashtú and Persian numbered 150 and 110 respectively.

Punjábi	877.
Urdu	198.
Sindi	33.
Hindi	31.
Others	13.

The number of persons speaking vernaculars of other Provinces in India was 1,152 as shown in the marginal table. English was spoken by 20 persons, these being chiefly the employés of the Railway.

Races and tribes.

The Kuchiks.

The Kuchiks, the only tribe of importance, are a section of the Rind Baloch, and in 1901 they numbered 174 males and 152 females. According to Mr. M. L. Dames,* the Kuchiks comprise the Chotai, Syáhphádh (Siáhpád) and Jalambáni septs, but those of Kirta are divided into the nine groups shown in the margin.† Of these, the Hasránri have entirely disappeared, the Kátiár have been amalgamated with the Magassis, the majority of the Pugs and Shádénzais have joined the Bangulzai Bráhuis, and the Májwis, now known as the Bájoi, have similarly been absorbed among the Jhalawán Bráhuis. The Bulánis, which sept also includes the Siáhpád, now form part of the Jalambánis. The approximate number of families residing in Kirta now (1905) is indicated in the marginal table. To these are added some twenty families of *hamsáyáhs*, who have long shared in the good and ill of Kuchiks and have thereby acquired a right to participate in the tribal land so long as they live in Kirta.

† Banguláni, Jalambáni, Chotai, Buláni, Hasránri, Kátiár, Pug, Shádénzai and Májwi or Bájoi.

Banguláni		19.
Jalambáni	24	40.
Buláni	3	
Siáhpád	13	
Chotai		4.

*Royal Asiatic Society Monographs, No. IV. *The Baloch Race*, by M. Longworth Dames, 1904.

Muhammad Shahi	1.
Raisáni	1.
Dínárzai	3.
Badúzai	2.
Shádénzai	4.
Kúrd	6.
Pug	2.
Rahéja (Rind)	1.

Their names and the number of families are given in the margin.

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The Kuchiks.

The constitution of a Baloch tribe has been described in detail in the Census Report for 1901 and need not be repeated here. The Kuchiks, though owning the Rind Sardár as their chief, have long occupied a position of isolation from him and have had a headman of their own. Common good and ill as in the case of other Baloch tribes has been the main principle on which their constitution has grown up. A new comer was admitted by the headman, such admission being known as *had paroshi* (literally, bone breaking). It was celebrated by the slaughter of a sheep and, before the British occupation, the *had parosh* received a share of land and water at the periodical distribution. Owing to immunity from external raids and internal peace, fresh recruits are no longer needed or received. Indeed, on finding themselves under British protection, the Kuchiks tried in 1891, though unsuccessfully, to oust those who in former days had borne the burden of the day with them. The *jirga*, to which the case was referred, were unanimous that the *hamsáyáhs*, who were in Kirta before the village was burnt by the Marri raiders*, were entitled to share in the land and water.

For some generations the Kuchik headman is alleged to have levied *sung* in the Bolán. With the aid of the headmen of septs (*wadéra*) he also controlled the tribe, adjudged between disputants, and, at times of emergency, furnished, through the Rind chief, the quota of men-at-arms required by the Khán of Kalát. The chieftainship has always been in the Banguláni group who trace their descent to

* Kirta appears to have been burnt by the Marris about 1873.

POPULATION.

The Kuchiks.

one Bangul. His direct descendants are noted in the margin, each of them succeeding to the chieftainship in turn. After Sáhib Khán came troublous times, and the narrative that follows will be rendered clearer by reference to the genealogical table which will be found in appendix II.

Tangav, Lashkar Khán, Mubárak Khán, Bashku I, Mazíd Khán, Bráhím Khán and Sáhib Khán.

Sáhib Khán was succeeded by Nazar Khán. When the latter died, his son Sultán Khán was a minor and the Kuchiks elected his uncle, Bashku, brother of Nazar Khán, as headman. Bashku was succeeded by his son Fatéh Khán. Meanwhile Samand Khán, son of Sultán Khán, and grandson of Nazar Khán, was putting forward his claim to the title of headman. He was supported by Pakár Khán, son of Bahádur Khán, but both were treacherously murdered by Fatéh Khán. Naturally the three sons of Samand Khán, with Bahádur Khán son of Pakár Khán on coming of age, vowed vengeance against Til Khán and the other sons of Fatéh Khán. They migrated to the Marri country, whence they raided Kirta, and eventually a fight took place at the Panérband hill in which there were losses on both sides. Peace was declared and Samand Khán's and Pakár Khán's descendants returned to Kirta, where they were given 2 *tírs* of land and water either as their portion of the chief's share in the land or in blood compensation. Subsequently, Nabi Bakhsh, son of Samand Khán, preferred a claim to the chieftainship, but this was disallowed by Sir Robert Sandeman in 1881. Nabi Bakhsh's son, Karím Bakhsh, never forgets his claim and has not been on good terms with the present headman, Mír Shakar Khán son of Til Khán (1905).

The Bangulánis are now (1905) divided into three subsections known as the Fatéh Khánzai, Samand Khánzai, and Pakár Khánzai. The leading men among them are Mír Wazír Khán, a restless and intriguing spirit, Dréhán,

The Kuchiks.

Azád Khán, Mír Hazár Khán, Karím Bakhsh, and Isa Khán. Owing to internal factions, and to the presence of British officials in the Pass, to whom the people refer their disputes, the influence of the Kuchik headman has decreased in recent years. Shakar Khán, the headman, is in receipt of a monthly allowance of Rs. 40 from the Bolán levy service. The chieftainship carries with it the privileges of receiving a special share of the tribal land, known as the *niám digár*; *séri* from the Damb land; and *chúnra* from all lands. The *niám digár* is the exclusive right of the chief; the *séri* and *chúnra* are shared among all the members of the Fatéh Khánzai *sardárkhél*. *Séri* is the allotment of a piece of land for the keep of the Kuchik headman's cattle; *chúnra* is the allotment of a *tír* at each distribution to the chief section. The members of the *sardárkhél* also receive one-fifth of the gross produce of the flats under cultivation between the Kirta village and the Naoling or Kundaláni bridge, except Alligul Bént, after deducting the Government revenue and the wages payable to the village menials. The headman of the Jalambánis is Bakhtiár Khán, and that of the Chotais, Akil Khán; the latter's son Islám Khán, however, does the work (1905).

Physically, the Kuchiks are of medium size and light build with a half-starved appearance. They are said to be a quarrelsome lot and they are indifferent cultivators. Their morality, notwithstanding the severe penalties for adultery, is indifferent.

Religion.

Muhammadans...	1,199.
Hindus	582.
Christians ...	22.
Sikhs	124.
Others	9.

The distribution of the inhabitants by religion is given in the marginal table. The indigenous inhabitants are all Muhammadans of the Sunni sect. Most of them are illiterate and their acquaintance with the tenets of their religion is, therefore, limited, but they are regular in the observance of fasts, prayers and alms-giving. Two *mullás* attend to

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their religious wants (1905), one in Nabíábád and the other in Kalán Kirta or Shakar Khán Shahr. They conduct prayers and perform marriage and funeral ceremonies; the *mullá* of Kirta Kalán also imparts religious instruction to the village children.

The people believe in the intercession of ancestors and saints in the pursuits of their daily life. These saints are invoked to cure diseases, to avert calamities, to bring rain, to preserve the supply of water used for irrigation from the perennial stream, and to bless the childless with offspring. Belief in evil spirits and their powers of theft is general. For purposes of protecting the grain on the threshing floor, the heap is encircled by a line drawn with a sword, and an amulet is placed over it until it can be measured for division.

If a Kuchik is called as he is starting on a journey, he must return and sit down before starting again. The braying of a donkey when a journey is being commenced is also of bad omen. If, after starting, a sisi, a woman of bad character, a minstrel or an old man crosses the path, the traveller must return home and begin again. A Kuchik will not sell milk, *ghí*, meat and melons produced on his holding.

Occupation.

The occupation of the indigenous population is agriculture; the aliens are employed on the railway and military road. The following table gives the occupations of the 1,233 actual workers recorded in 1901 :—

Transport and storage (Railway)	488
Earth work and general labour (Railway) ...	278
Administration (clerks, police and levies) ...	73
Personal, household and sanitary services ...	67
Buildings (masons)	47
Light, fuel and fodder	38
Food, drinks etc.	34
Commerce	14
Independent	32
Agriculture	85
Learned and artistic professions	46
Others	31

Class distinctions are as marked among the Kuchiks as among other Baloch tribes, the headman and leading men among the Bangulánis and the headmen of the Jalambáni and Chotai occupying a position of distinct superiority to the rest of the people. Besides managing the affairs of the tribe in general, the Bangulánis preside at the periodical distribution of tribal lands, in which they still possess specific shares which are higher to those of the rest of the tribesmen.

POPULATION. Social life.

The usual custom of taking and giving the news (*hál*) is observed. Enquiries and answers are limited to the usual salutation, welcome and enquiries after the health of the person concerned, of his immediate relations, and as to the business which has lately occupied the parties concerned or to the errand which has brought a stranger. The right of taking or giving the news rests with the headman, a leading man from among the Bangulánis, or a *wadéra*, if they be present, and, in their absence, with the principal man present.

Custom of hospitality.

Hospitality is meted out to all, and the headman, the *wadéra* of the Jalambánis, and Isa Khán Banguláni, keep guest houses (1905), where friends and strangers are entertained. A separate room is provided for relations and intimate friends. Some strangers go to the *masjid* where their food is sent them. Bedding as well as food is supplied to men who are well known, and they are served with meat and churned curd (*aqar*). Others have to be content with dry bread to which butter-milk is sometimes added.

Co-operation among the tribesmen.

Subscriptions are raised by the tribesmen among themselves on certain occasions, the system being known as *bijjár*. *Bijjár* is subscribed when an individual has been reduced to poverty, owing to unforeseen circumstances, such as the burning down of his house, when a heavy fine has been imposed on him, to assist him in paying blood money, or to celebrate a marriage. Contributions are

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invited by the person in need and payments are made either in cash or kind. The contributions are regarded in the light of a debt of honour, to be discharged if the donor ever has to demand *bijjár* himself.

Manner of spending the day by headmen and cultivators.

The headmen and the *wadéras*, who own sufficient land to provide for the needs and comforts of their families, live in comparative ease. Praying, eating and gossiping fill their day, with now and again a little business, such as arranging for the periodical distribution of land and water, supervising the construction and maintenance of dams and water channels, looking after the needs and comforts of their guests, and acting as peace makers or arbitrators in petty disputes among the tribesmen. The cultivators are fully employed at seed and harvest times and, in the interval, have a good deal to do in constructing and repairing the dam and the water channel to the Kirta village. The women folk of the headmen lead comfortable lives as their household work is done by servile dependants. Besides their household work which includes grinding, cooking, milking, sewing, mending and washing clothes, the cultivators' wives have to tend the cattle, assist in harvesting, and collect fuel and fodder in summer.

Food.

The Kuchiks have generally two daily meals, one in the morning (*sobh naghan*) and the other at sunset (*bégáh naghan*). Some of the cultivators, when at work, consume a midday meal, often of parched grain. The staple food grains are wheat and *zurrat*, the local name of *juári*. Wheat is consumed for about seven months, from June to December, and *zurrat* from January to May. Wheat is made into unleavened bread and baked in an oven; *zurrat* is also made into cakes but is baked on a stone griddle. Wheaten cakes are eaten in the morning with butter-milk, and in the evening with *mung* or with a mess made of dried melons (known as *téjaki chamri*) to which a little *ghí* is added. *Zurrat* cakes are eaten dry in the

morning and in the evening with *dál*, dried whey (*krut*), or *téjaki chamri*. Meat is a luxury which only the well-to-do can afford. POPULATION.

Cows are kept by most people; some have a few goats also. Curd made with *panérband* (*Withania coagulans*) forms the basis of most preparations made from milk including butter and cheese. Butter-milk is much consumed, next in demand to which is *krut*, or cakes of boiled whey, which is imported from Quetta. A delicacy peculiar to the Bolán is *bhúri*, which is prepared from the pollen of the *kul* plant (*Typha angustifolia*) growing in the Bolán river between Kirta and Pír Chauki. It sells at about 4 seers to a rupee and is eaten in summer. The pollen (*ghurz*) is made into small bundles and tied in cloth after which it is well steamed in a closed vessel. The *bhúri* is then either eaten as it is or mixed with sugar in which case the preparation is known as *shoragh*.

Men and women eat separately, as the men consider it objectionable to eat food of which a woman partakes. The cooking utensils are few and dirty; they usually consist of a tripod, a stone griddle, an earthen pot, a copper pot, and a few drinking bowls and metal plates.

Male dress.

The dress worn is white* and consists of a turban (*dastár*) of about 5 yards of muslin costing R. 1, tied over a low skull cap (*top*) costing 4 annas; a shirt (*pashk*) made of cotton locally known as *satteen* reaching to the knee, price R. 1; baggy trousers price 11 annas; and a wrapper (*chádar*) price 12 annas. In winter a Kandahári *postín* is added which costs about Rs. 3. Sandals (*chawat*) are used which cost about Rs. 2, but a good many of the cultivators make their own. The well-to-do have a larger turban, made of about 9 yards of muslin tied over a home-made embroidered cap which

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* *Kuchik* or *Kuchk* in Baluchi means "a white shell" and the Kuchiks believe that the nickname was given to them by Mír Chákar, the Rind, because they wore white clothes.

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costs from R. 1 to Rs. 2 with a shirt, trousers and wrapper of better material costing in all about Rs. 3-4-0. Embroidered waist-coats and coats costing Rs. 4 to Rs. 20 are also popular. Shoes (*paizár*) made in Bhág or Dádhar which cost about Rs. 3 per pair are worn, but some people use English boots costing from Rs. 7 to Rs. 10.

Female dress.

A woman's dress generally consists of a cotton wrapper (*sari*) price R. 1-2-0; a shift or shirt (*pashk*) which reaches a little above the ankle and costs R. 1-8-0; and drawers costing 12 annas. No shoes are worn except by the well-to-do; the drawers are a recent innovation introduced since the British occupation.

The material used by poor women is cotton or chintz, a cheap striped cloth, *ilácha*, being popular for shifts, and the whole dress costs about Rs. 3-6-0. The women of the well-to-do classes use better material: red striped cloth (*ilácha*) for shirts and trousers, and fine cotton (*doria*) or red cotton (*alwán*) for wrappers. The cost of such a dress, including shoes and the embroidery work done on the shirt, varies from about Rs. 7-4-0 to Rs. 10-2-0. Ornaments are confined to cheap rings worn in the nose and ears, and on the hands. A married woman's nose-ring (*phulli*) is always of gold. An unmarried girl may not wear the ear-rings known as *jhálar*, and a widow must always have a white shirt without any embroidery.

The woman's hair is divided by a parting in front, brought round the ear and made into two plaits at the back. The men wear long hair.

Dwellings.

The dwellings used are mud huts, consisting generally of a single room about $28' \times 12\frac{1}{2}'$ in size and costing about Rs. 30. In an adjoining hut, about $15' \times 8'$, cattle are stalled and another room $13' \times 7\frac{1}{2}'$ is used for storing fodder. The roof is either flat or sloping and consists of brushwood covered with thick mud plaster. The timber is brought from Bárari in Kalát territory.

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Disposal of the dead.

The method of burial usual among Muhammadans is in vogue, the body being laid north and south with the head inclined to the west. The *mullá* draws the *kalima* either on the forehead of the corpse, or on a piece of pottery or clod, which is placed under its head. Mourning lasts for three days for tribesmen and for ten to fifteen days for headmen, during which time visits of condolence are received and prayers are offered for the soul of the deceased. On the first day no food is cooked, but the family of the deceased is fed by friends and relatives. Persons coming to condole with the family give a sheep or some cash as an offering (*pursi*) varying from 8 annas to Rs. 2. On the last day of the mourning (*seh*), sheep are killed and alms distributed. The mourning in the case of a child under seven years lasts for one day.

Amusements and festivals.

Some of the well-to-do indulge in shooting. The principal outdoor game is *hu*, a game, resembling prisoner's base. The only festivals of consequence are the two *Ids*, known as the *Mazani Id* and *Kisáni Id*, which are celebrated in Kirta. Horse racing and swinging (*júnth*) form the chief amusements.

Shrines.

The shrine which the Kuchiks most revere is that of Pír Tangav—a Kuchik Sardár—which is situated in the Dádhar *niábat* in Kalát. Tradition says that the Pír fought the Hasni Afgháns at Kumbri and afterwards walked to Rindli with his head in his hand. The Jalambánis and Chotais in Dádhar pay fixed contributions to the shrine, and the Kuchiks of Kirta have assigned a *bit** of land and water in Kirta for its benefit.

Bíbi Náni, whose shrine lies on the bank of the stream close to the southern end of the Bíbi Náni bridge is the guardian saint of the water supply. Speaking of the goddess of the shrine at Hingláj, who is also known to Muhammadans as Bíbi Náni, Masson writes: "It is possible they—the Muhammadans—preserved the ancient name

*A division of water, one-fourth of a *tír*.

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Nanaia, that of the goddess of the old Persians and Bactrians and now so well known to us by coins."* Local tradition asserts that the lady was a daughter of Yá Ali and that her brother sank into the ground at a place about 2 miles from the Khajúri village in Sarawán, on being pursued by the Gabrs or Zoroastrians. At the spot is a spring, said to have been miraculously produced by the brother and known as Gháib Pír by the Muhammadans and as Mahádév by the Hindus of Kachhi. The Kuchiks used to allot 8 *kásas* of grain per *tír* at each harvest to the shrine of Bíbi Náni, the proceeds being used for the purchase of sheep to be sacrificed whenever a party of the cultivators went to repair the water channel. The sacrifice has ceased since about 1895, and the superstitious people allege that the water in the Kaur Bíbi Náni has decreased in consequence.

Pír Panja is a rock with a solitary *gwan (Pistacia khanjak)* tree close to the military road at mile 33 from Quetta, and is said to be the foot-print of Ali. The Bráhuis during their periodical migrations offer sacrifices at the shrine.

The Kuchiks also resort to the shrine of Pír Dopási which is situated about 2 miles from Rindli in the Dádhar *niábat*.

Names and titles.

Names of totemistic origin are seldom met with among the Kuchiks. The denominations used for men are those usual among Muhammadans, those ending with Khán being popular among the better class of people. It is a custom among the better class to transmit the name of a grandfather to the grandchild, a system which often leads to confusion when any particular person of importance has to be traced. Most of the cultivators have shortened names such as Gwaharám, Ghulám, Ján, Hambo. In the case of women, names ending with Náz or Bíbi are popular such as Zar Bíbi, Núr Bíbi, Zar Náz or Gul Náz etcetera.

*C. Masson. *Narrative of a journey to Kalát*, 1843, p. 391.

No ceremonies are observed on the birth of a girl. She is named by the mother or some female relative. The birth of a son is announced by the woman attending the mother. Guns are at once fired and there are general rejoicings. The boy is named on the seventh day after consultation with the *mullá* or the village headman.

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The term *sardár* is always confined by the people to the headman for the time being, other members of the Bangulâni section being called *mír*. The title of *sardár* is not, however, recognised by Government. The headmen of the other sections are called *wadéra*.

Rules of honour.

The code of honour of a Kuchik makes it incumbent on him:

(1) To avenge blood.

(2) To fight to the death for anyone, except an adulterer, who had taken refuge with him. A refugee is called *báhot* and in former days was always maintained by his protector so long as he remained under the latter's roof.

(3) To defend, to the last, property entrusted to him.

(4) To be hospitable and to provide for the safety of the person and property of a guest.

(5) To refrain from killing a woman, a Hindu, a menial, or a boy who had not taken to trousers.

(6) To pardon an offence on the intercession of the women of the offender's family, of some leading men, or Saiads.

(7) To refrain from killing a man, who had entered the shrine of Pír Tangav or Pir Dopási in Dádhar so long as he remained within its precincts; and also a man who, while fighting, begged for quarter, declaring himself to be a coward (*laghor*).

(8) To cease fighting when a *mullá*, a Saiad, or a woman, bearing the Korán on his or her head, intervened between the parties.

(9) To punish an adulterer with death.

CHAPTER II.—ECONOMIC.

AGRICULTURE. General conditions. Compared with the aggregate area of the Pass, the cultivated, and indeed the culturable, area is trifling. The nature of the country, moreover, is such that a large extension of cultivation is impossible. Water for perennial irrigation, which alone assures a harvest, is limited in quantity, and dry-crop cultivation must always be circumscribed by the conformation of the surface and the scanty rainfall.

The culturable area in the Pass comprises the Government land at Rindli, the *bénts* or flats between Pír Chauki and Naoling or Naolang, the principal ones being the two Drabbis which are owned by the Kúrds and cultivated by the Bangulzai Bráhuis, and the Kundaláni Bént; the *bénts* known as those of Bakhtiár Khán, Jalambáni, and of Islám Khán, Chotai, which lie between Naoling and Afghán Ponzak; the Gokurth or Chhota Kirta lands, Sardár Bént, Kahúr Bént, Ali Gul Bént, Taht Mír, Ahd Kachh, and Réghti which lie between Afghán Ponzak and Kirta Kalán; Shahrpad Kund, Drabbi, Damb, Ala Bég, Thal, and Píshi situated in the Láléji plain; Kunar Dar, Thal Shamshér Khán, and Sohri. All these are irrigated from the Bolán river or from springs which rise in its course. A few pieces of culturable land lie along the bed of the river between Mach and Kolpur. The principal dry-crop areas are Takari or Trakri, Toba, Sáhibdád Thal, Panérband, Chirak and Zámuri.

Soils. No scientific analyses of the soil in various parts of the District have been made, but the people of the country have a classification of their own, based on the most

obvious properties. The best is the stiff soil, known by the name of *siáh zámín* or *khauri*, which is suited to all crops. Next comes that containing silt, known as *matti* or *khar*, the best soil for wheat. *Zhallo*, a soil which contains a good deal of gravel, is adapted both to wheat and *zurrat*, while *rékhar* is that which has a mixture of sand. *Drabbi* is a soil on which *drab* grass grows. The worst soil is *kalar* bearing salt efflorescence. The greater part of the culturable area possesses either *zhallo* or *rékhar; matti* is met with in Ala Bég and Damb, and *khauri* in the latter place. The soil of almost all the *bénts* is a mixture of *zhallo* and *rékhar;* that of the land to the north of Kirta is *drabbi*. AGRICULTURE.

Rainfall and system of cultivation in relation thereto.

The rainfall in the cultivated part of the District is probably about 4 inches, the average amount received at Panír. Not only is it absolutely necessary for the cultivation of the dry-crop tracts, but the permanent sources of irrigation are largely affected by it. For the spring crop, in dry-crop lands, rain in June and July is needed to fill the embankments. As indicating the effect of the rainfall on the supply of permanent water, it may be noted that, the irrigation water for the Kirta village had greatly diminished in the four years ending in 1902, owing to the drought, and that this was also the case in 1903-4, when the Political Agent, writing in connection with the slight increase in land revenue, said, "the increase would have been still larger had not the *kharíf* cultivation failed for want of water."

The irrigated area within the limits of Kirta is about 3,135 acres, exclusive of some of the flats along the course of the Bolán river between Kirta and Naoling. At Rindli, there are about 27 acres and at Mach about 7 acres. The dry-crop area is estimated at about 800 acres. Almost all of the land at Mach is planted with garden. In places under permanent irrigation, the area under cultivation varies with the supply of water in

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the river, and is also affected by the fact that the tracts in Kirta, which are periodically divided for cultivation, are of different sizes. During 1905, what are known as the Damb lands were cultivated, and the area under crop was roughly estimated at about 1,300 acres under the spring crop and about 1,000 acres under the autumn harvest. Besides the Damb lands, about 130 acres were under the spring crop and about 38 acres under autumn crops in the flats, and about 17 acres were cropped at Rindli. In years when the water supply is deficient, an autumn crop is raised on the same land from which wheat has been harvested, the moisture already in the fields being thus utilised, and the construction of new and absorbent field channels avoided. This method was followed in 1905.

Dry-crop land is usually cultivated with wheat in small patches when sufficient rainfall is received. There is stated to have been no such crop in the decade ending with 1901.

Population engaged in and dependent on agriculture.

In 1901, 83 males were classed as actual agricultural workers. Most of the proprietors are themselves the tillers of the soil. The well-to-do employ tenants-at-will (*ráhak*), and some get their lands cultivated by their servile dependants (*bána*).

Seasons of the year, sowing and harvest times.

The principal harvests are the (*gandím*), or spring harvest, which includes the crops sown between October and December and reaped about the middle of May; the *sánwri*, or autumn harvest, which consists of the crops sown between August 1, and September 15, and reaped in January; and the *chétri*, that is, the late or extra spring harvest, sown in April and reaped in July. The following are the chief crops produced at each harvest:—

Gandím.—Wheat (*Triticum sativum*).

Jav.—Barley (*Hordeum vulgare*).

Sánwri.—*Zurrat* (*Andropogon sorghum*).

Kunjid (*Sesamum Indicum*).

Chétri.—Melons and water-melons, and *zurrat* for green fodder. AGRICULTURE.

Principal crops.

The largest and the most important crop is wheat which, as already stated, is the staple food of the indigenous population for seven months in the year. Next to it in importance is *zurrat*, the staple for about five months. Besides the crops already mentioned, a little rice, tobacco, some *mung*, known locally as *másh (Phaseolus mungo)*, and *moth (Phaseolus aconitifolius)*, are also cultivated; the two last are mixed with the *zurrat* and used as green fodder. English vegetables are grown in the gardens at Rindli, Mushkáf, and Mach. They are chiefly consumed by the alien population.

Wheat.

Statistics of the area under each crop are not available, but as already mentioned, the spring harvest consists almost wholly of wheat and covers about 58 per cent. of the total area cropped in a year, most of the remaining area being under *zurrat*. The quantities of the various grains realized as revenue, which are given in table III, Vol. B., indicate the relative importance of the various crops. The average revenue of the quinquennial period 1897-8 to 1901-2 in round figures is given in the margin.

	Maunds.
Wheat	542.
Zurrat	169.
Kunjid	2.
Rice	7.

The wheat sown in the District is of seven varieties: *bárkhami* the seed of which, as the name implies, was originally imported from Bárkhán in the Loralai District about the year 1885; *talmalo*, a new variety imported from Narmuk about 1901, the grain of which is larger and thicker than that of *bárkhami*; *suhr-bij*, the indigeous variety; *réli*, a kind introduced from India since the opening of the railway; *sangsíla* introduced from the Bugti country; *káréz ná bíj*, also known as *pazhmi*, a white variety, the seed of which has been imported from Marav in Sarawán; and *wáru*, a red wheat also said to be

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indigenous. *Wáru* is an inferior sort and is now seldom cultivated. *Bárkhami* and *talmalo* are now (1905) most popular.

The cultivation of wheat in irrigated land begins about the 10th of *katti* (October) and lasts up to about the middle of *poh* (December). The seed is always sown broadcast (*chhat*). It is either sown in land which has not yet been watered, a method known as *sukári*, or after the land has been watered (*ádh*) and when the face of the ground has dried and has assumed a whitish appearance. After being scattered, the seed is ploughed in and beds are made with a *dhal*. The seeds (*bíj*) germinate about three days after the first watering (*khákáf*). If water is available, the crop is now watered a second time (*páon*) and as soon as the crop appears above the ground it is known as *hít*. Thereafter it is watered at intervals of eighteen to twenty days. In January the young green stalks are cut and used as green fodder. This cutting improves the subsequent yield. The grain is half ripe (*ábú*) in March; and harvesting begins early in May. The reapers (*láihar*) receive as their wages, one sheaf (*sitli* or *píli*) in every twenty-one. The sheaves are put in nets (*trangar*) and carried to the threshing floor (*pirh*) a heap of harvested crop being known as *johán*. The method followed in threshing *gowat* is that usual in India, a long pole being placed on the ground in the centre of the threshing floor and ten or fifteen bullocks being driven round it to tread out the grain. Threshing being over both straw and grain are collected into a heap (*dharo*), and winnowing is commenced with the winnowing fork (*chạ́r shákha*). The husks and chaff are again winnowed, the process being named *parghat*. The chaff is called *kanda*, the straw *boh*, and the heap of cleaned grain *zágh*.

Wednesdays and Fridays are considered most suitable days for the division of grain (*batái*); Tuesday is inauspicious. On the day fixed, an amulet is obtained from the

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mullá in which he writes a verse of the Korán. It is stuck in a stick and planted in the middle of the grain heap. Whatever the measure to be used, the first one filled is put aside as *rasúl wáhi*, to be given to the village *mullá*. The grain is divided into six heaps (*kohri*), of which one is taken as the Government revenue. From the remaining five heaps, the *mullá* and other village servants are paid; the seed sown is next deducted, and the balance divided between the landlord and the tenant.

Zurrat.

Andropogon sorghum is known to the Kirta Baloch as *zurrat*; there are two common varieties, the *chau-bubbi*, or four teat, the ear of which is divided into four parts; and *bádrai*, a white variety, the seed of which has been imported from Bádra in the Marri country. A third and red variety is *sohro*, but it is only grown in small plots and consumed after parching.

Zurrat is either sown broadcast (*chhat*) for fodder, when the harvest is known as *chétri* or *arhari*, or for its grain, when it is called *sánwri*. For *chétri* cultivation the land is cleaned of shrubs at the beginning of March and the seed is sown as in the case of wheat, either in dry land or in land which has been first watered, and then ploughed in. Waterings continue after germination at intervals of ten to twelve days, but these periods can be increased when water is scarce up to eighteen days. The crop is fit for fodder in *jéth* and *arhar* (May and June). Melons and water-melons, which are also sown mixed with *zurrat*, ripen in July. The roots of the *zurrat* crop, if again watered in August, produce a crop of grain about December.

The chief *zurrat* crop intended for human consumption is sown from the beginning of *sánwan* (July) to about the middle of *bádré* (August), the *chau-bubbi* being sown during the first twenty days of July and the *bádrai* from July 20 to August 15. Cleaning the land takes place in June, the system of cultivation being the same as for

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wheat in irrigated land. At the beginning of October when the crop is half ripe, it is liable to damage from birds. The harvest takes place in December.

The only disease known to the people, which affects the *zurrat*, are insects (*kiram*) which appear in *assún* if the supply of water for irrigation is insufficient. Two successive waterings, if procurable, remove the evil.

In dry crop land *zurrat* is sown broadcast in July; it ripens with the September rain and is ready to be harvested in November.

Manure, outturn and rotation.

Little manure is available, nor is much attention paid to manuring. The rubbish and dung of domestic animals is allowed to remain in the village, and when the turn comes for cultivating the land lying close to the village, it is removed to the fields and used as manure. No returns of the produce per acre have been published.

When the water supply is abundant, wheat is ordinarily cultivated alternately in the tracts known as Damb, Drabbi, and Shahrpad; and is grown alternately in Thal and Ala Bég. If, however, the water supply is deficient, *zurrat* is sown in the same land from which wheat has been harvested for reasons which have already been explained.

Fruit and vegetable gardens.

Before the British occupation, fruit and vegetable culture was almost unknown in the District. The only vegetable grown was *pichhli (Portulaca oleracea)*, which was sown mixed with *zurrat* or *çhétri*. A beginning was made in 1888-90 by Captain Temple, Political Agent, and M. Najaf Ali Khán, Native Assistant, when fruit trees were imported and planted at Rindli and Mach. The first of these orchards has since been sold; that at Mach is managed by the tahsíldár. Gardens were started by the Railway department in 1893 at Mushkáf and Mach, the former is only a vegetable garden while the latter, besides producing English and Indian vegetables, is also well stocked with fruit trees. The trees in the Mach and

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Rindli orchards include Maltese oranges, limes, sweet limes, pomegranates, mangoes, guavas, plantains, peaches, figs, mulberries, *bér* trees, dates, pears, walnuts, quinces, apples, plums, almonds and vines. The oranges grown at Mach are of particularly good quality. Spare fruit from Mach is sent to the Quetta market. Though successful results have been attained, tree planting has not been unattended with difficulties, and Mr. E. Wood, Locomotive Foreman, who has been in charge of the Railway garden at Mach for many years writes: "The nature of the ground does not lend itself to cultivation of trees or vegetables, owing to the presence of stone and gravel. For trees, deep holes have to be dug and filled with imported soil from a neighbouring hill, but, in spite of this, the more delicate trees, such as peach and apricot, frequently wither as soon as the roots touch the natural soil. Soil to make the garden had likewise to be imported from the same source, and later, several waggon loads of better soil were obtained from Mushkáf, and manure was brought from Sibi until now (1904) a depth of about one foot has been secured."

Extension and improvement in cultivation.

Before the British occupation, the Kirta villagers lived in constant fear of Marri raiders and could only safely cultivate such land near the village as could be protected from towers. When the turn came for the more remote tracts, preparations had to be made for defence, patrols were posted, and every one went to his work fully armed. If they stayed for the night, all congregated in one place, placed the cattle in the middle, and posted sentries for their protection. Masson, who passed through the Bolán in 1827, remarks: "About half a mile to our left, or to the north, was the small village of Kirta, inhabited by Baluchis, subjects of Kalát, but at the mercy of the predatory hill tribes. * * * There is some land cultivated, principally with rice, and there might be much

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more, were there any security." * In consequence of one of the Marri raids, the Kuchiks at length deserted the village and moved in a body to Dádhar about 1873. Since their return, cultivation has largely increased. In pre-British times, when the village was inhabited the total number of shares into which land and water were divided seldom exceeded 15, but these shares have now almost doubled. It is, however, alleged that the imposition of revenue in 1892, and the drought which has continued for some years have, to some extent, retarded further expansion. The capital cost of reclaiming *bénts* is large and the expense of their maintenance considerable, and the cultivators have to pay one-fifth of the produce to the Banguláni *sardárkhéls*, all of which are obstacles to extension.

Some improvements have been effected by the introduction of fresh varieties of seed, both of wheat and *zurrat*, as mentioned above, but the system of periodical distribution of the land, thereby depriving the cultivator of all permanent interest in it and of any incentive to improved methods, must prove a fatal check to progress, so long as the system continues. Rice of an inferior kind was formerly grown, but its cultivation has almost entirely ceased now.

Agricultural implements.

A list of the implements used, with the vernacular name of each, will be found in appendix III.

The principal implements include the plough, which is known as *nangár*, the plank harrow or scraper (*kén*) with which embankments are made, and the clod-crusher, or log used, in place of a roller, for breaking clods and smoothing the ground, called *málav*. Among minor implements may be mentioned the *ramba* or weeding spud; the *kodar* or hoe; the *dhal* or wooden spade worked by two men with a rope for making small embankments;

* *Journeys in Baluchistán, Afghánistán and the Punjab* by Charles Masson, 1842, Vol. I, p. 335.

the sickle (*dás*) for reaping; four or two pronged fork (*chár shákha* or *biháno*); and the *dhalli* or winnowing spade. There has been no improvement in these implements, but the use of iron for agricultural work is apparently more general than in former days. AGRICULTURE.

Agricultural advances.

The Land Improvement Loans Act XIX of 1883, and the Agriculturists' Loans Act XII of 1884 have not been applied to the Baluchistán Agency but the question of their extension is (1905) under consideration. Rules to regulate such advances have been promulgated under the executive orders from the Government of India, and are embodied in the *Baluchistán Takávi Advance Manual*, 1902. The annual grant for the whole Agency is Rs. 60,000 of which Rs. 45,000 are allotted to other Districts. Allotments for the Bolán Pass are made, when required, from the reserve of Rs. 15,000 at the disposal of the Agent to the Governor-General. The Political Agent is authorised, within the limit of his grant, to sanction advances not exceeding Rs. 1,000 in each case, and the Revenue Commissioner up to Rs. 3,000; the sanction of the Local Government is necessary for advances in excess of this amount. The ordinary rate of interest is one anna in the rupee or 6¼ per cent. per annum, but in a case in which the Political Agent is absolutely satisfied that the project is a sound one financially, and it is likely to lead to an increase of revenue, which, within the term fixed for the complete payment of the advance, will amount to not less than the whole interest which should have been charged under the rules, he is at liberty to grant the advance free of interest. The advances can be granted either for works carried out by the Political Agent himself or by the agricultural population.

No takávi advances had ever been made up to 1904-5 when amounts aggregating Rs. 1,800 were advanced. Rs. 1,000 were advanced jointly to the cultivators for

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putting the water channel which irrigates the Kirta lands in repair, while advances were made in two cases for the construction of wells worked with the Persian wheel. The latter have proved successful.

Agricultural indebtedness.

The *zamíndárs* of Kirta have incurred heavy debts in recent times,and it has been roughly estimated (1905) that their liabilities amount to more than Rs. 10,000. The cultivators assign, as the reasons, the facts, that their services in the levies have been much reduced, that the supply of irrigation water has diminished, and that they have been obliged to pay revenue. It may be added that their standard of living has undoubtedly risen in recent times and that, owing to their indolence, they have not derived so much advantage from British rule as they might.

The greater part of the debt has been incurred with three Hindu *banias*, who have shops in the village. Occasionally, however,the cultivators finance one another. In the latter case a sum of money is advanced and the land and water are mortgaged with possession to the creditor for a fixed term varying from five to nine years, during which the mortgagee cultivates the land, pays the Government revenue and appropriates the produce which covers both the repayment of principal and the payment of interest. At the end of the period the land is restored to the mortgager. The system is locally known as *ijára*. The mortgagees' position, it may be noted, is very insecure as, should the mortgager leave the village permanently, both he and his representative, the mortgagee, lose all rights to receive a further share at the periodical distributions of land.

For cash advances or loans, the shopkeepers charge 1 anna per rupee per month as interest, and if the loan is not repaid at the next harvest, compound interest is charged. Credit is given for goods purchased from time to time, the price being payable at the next harvest and interest

being charged at the rate of 2 annas per rupee.

Advances of seed grain are also made by the shopkeepers to cultivators. For these advances various methods of repayment of interest are in vogue. Under one system, recently introduced, the price of the grain is determined at the time and is repayable, either in cash or kind, with interest at the rate of 2 annas per rupee, at the next harvest. Under another system, interest in kind at the rate of 25 per cent. (*siwái*) is charged on advances of wheat seed, while for advances of *zurrat* seed an equal quantity of wheat is recovered at the next spring harvest.

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Domestic animals.

The principal domestic animals are bullocks and cows, which are of the Bálá Nári and Bhág Nári breeds, a pair of bullocks costing about Rs. 80 and a cow about Rs. 30. Fowls are also reared which fetch from 5 to 8 annas apiece, and eggs cost about 6 annas a dozen. A few ponies are also kept for riding, the price of which varies from Rs. 60 to Rs. 80. Goats are bred for their milk, the price of a full grown one being about Rs. 5 and of a kid R. 1-8. The approximate number of animals owned by the Kuchiks includes 100 bullocks, 130 cows, 45 goats, and 10 ponies (1905).

Pasture grounds and difficulties of feeding cattle.

In years of good rainfall, grass grows abundantly in the Láléji plain and in the surrounding ravines; *drab* and *káshum* grasses also abound in the bed of the Bolán near Kirta, and afford sufficient fodder in summer. Other grasses are *kaj*, *gandíl* and *haddén*. The cattle are fed on green wheat and *zurrat* in the spring and summer, and on straw and dry stalks of *zurrat* in the winter. No difficulty, therefore, is experienced in feeding the few local cattle.

Cattle diseases.

No scientific enquries into prevailing cattle diseases have ever been made. The commoner diseases among cattle include *sirh*, apparently a kind of dysentery, as a remedy for which branding is resorted to; *káli wáh*, a kind of staggers, and *cháru* (Bráhui, *chálri*) presumably

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foot and mouth disease. Animals suffering from *sirh* and *cháru* are segregated.

Sources of irrigation.

The main supply of water for the irrigation of the Kirta lands is brought from the Bíbi Náni stream, also known as the Dárdán. A dam is made at Chirián Buth, about 2 miles to the west of Bíbi Náni bridge, and the water is thence carried in an open channel for a distance of about 12 miles. After every heavy flood the dam and channel have to be repaired. The Kuchik headman and the Jalambáni and Chotai *wadéras* arrange for the erection of the dam and the maintenance of the channel by *chhér*, i.e., labour supplied by the villagers in proportion to the share of each in the water. The Kuchik headman is not required to contribute. Every year the work to be done occupies the people for about forty days, the total number of men required being about 1,750 and over 100 pairs of bullocks.

Two wells have recently (1904) been sunk close to the Kirta village for purposes of irrigation, the water being raised by Persian wheels. The depth varies from 20 to 25 feet and each well irrigates about 3 acres of land. It is hoped that this means of irrigation will, in time, be further extended.

Division of water.

The water of the Bolán is divided by *zamíndárs* into a number of shares, the principal share being the *tír*. The lowest unit of division is a *kamán*.

2 kamán = 1 shabána.
2 shabána = 1 bit.
4 bit = 1 tír.

When water is abundant, a *tír* represents the flow of twenty-four hours, a day or night being known as a *bél*; in years of deficient supply, however, the *tír* is reduced to twelve hours. On nearing the land to be cultivated, the water is divided into channels, each channel comprising a number of *tírs*. Each of the sharers in a particular channel turns the whole supply of water on to his land

by turn for a *bél* or about twelve hours at a time. AGRICULTURE.

In Rindli an *angusht*, or finger is the principal unit of water division. The Kunari channel taking off from the Bolán river, carries 34½ *angusht* of water, of which 10 *angusht* are owned by Government and 24½ *angusht* belong to the *zamíndárs* of Old Rindli. In the actual distribution, the Government land takes the whole of the water for seventy-two hours, the equivalent, in local parlance, of 6 *wakht*, and the *zamíndárs* get it for seven days in every ten days. The Government share is sub-divided as shown in the margin (1905).

Rais Punún	...42 hours.
Garden belonging to Bahár Sháh and others	...18 „
Inspection Bungalow ...	... 1 hour.
Land leased for vegetable cultivation ...	...11 hours.

A list of principal agricultural and revenue terms in general use is given in appendix IV.

RENTS, WAGES AND PRICES.

Rents.

Cash rents are unknown among the cultivators; rent always consists in a share of the grain. The only instances of cash rents are to be found at Rindli, where the lessee who cultivated the Government land up to 1895, paid a lump sum of Rs. 250 which represented a rate of Rs. 9-4-1 per acre, while a small plot is annually leased to a *baniá* for vegetable cultivation, the revenue and rent of which in 1905 was Rs. 60 for 2½ roods.

Produce rents, methods of distribution of the grain heap.

In the dry-crop tracts of Takari and Toba different systems prevail. In the former, where the owners have constructed the embankments and the tenants are temporary, the landlord supplies the seed, and the tenant the labour and bullocks, and the produce, after the deduction of Government revenue and wages of village servants, is equally divided. In the latter, where the tenants have made the embankments and cannot be ejected according to custom so long as they keep the *laths* in order, the tenant supplies all the requisites of cultivation and pays to the landlord, after deductions similar to those men-

RENTS, WAGES AND PRICES.

tioned above, one-fourth of the produce as his rent.

Most of the irrigated area is cultivated by the proprietors themselves; when a tenant is employed he always provides labour and bullocks, while the seed is found either by him or by the landlord. The first charge against the grain heap is the Government revenue, then the seed and the wages of village servants, after which the balance is divided between the landlord and tenant equally.

Tenants are not bound to perform any services for their landlords, though occasionally they may bring him a load of grass or fuel; nor are they under agreement to carry the landlord's share of the produce to his house. They must assist in constructing the irrigation works and carry the Government share of grain and straw to the place appointed, and even to the Píshi railway station.

Cultivation in the irrigated land of Kirta is not infrequently carried on jointly, as the lands need embanking which entails much labour. In such cases, three or more proprietors and tenants join, each of them providing a proportionate share of seed, while each tenant brings with him as many bullocks as he can supply. When the harvest is gathered the Government revenue is paid first, then the seed is returned, and the wages of village servants are paid, and the balance is divided equally between the proprietors and the tenants. The former divide their portions in proportion to the share of each in the land, while the latter set apart three-fourths of their share for equal division among the men, and one-fourth for the bullocks.

Wages.

No cooly class exists among the cultivating population. Servile dependants, male and female, work for those who are well-to-do. Makránis and poor Bráhuis are, sometimes, temporarily employed, their wages consisting of food and clothing. Harvesting is done by Jats from Kachhi and by Bráhuis, who are paid one sheaf out of

every twenty-one of the cut crop. Most of the women grind their own corn for domestic consumption with hand mills (*jantar*); when it is done for the well-to-do, the wages given consist of one-fifth of the corn ground.

RENTS, WAGES AND PRICES.

Tending cattle.

Those of the Kuchiks who keep goats employ a goat-herd who is given his food and clothing and paid Rs. 10 per annum in cash. Cowherds, who tend the village cattle, are paid one *topa* of grain for a cow and one *pinrki* for a weaned calf per mensem, and for plough bullocks one load of corn ears at each harvest.

Village servants.

The village servants are the carpenter *(drakhánr)*; the *hajám* or barber, who, besides following his ordinary avocation, performs certain services on festive occasions, and also circumcisions; and the *mullá*. Each of these men is given one *kása* of grain and one man's load *(bhari)* of corn ears at each harvest per *tír*. If the carpenter has worked well, he is also given a *shabána* of land and water at the periodical distribution.

The Saiads of Kiráni in Quetta-Pishín are requisitioned to ward off calamities, such as rust in the crops and locusts, and to preserve the water supply of the Bolán, for which call on their services they are paid Rs. 2 per *tír* at each harvest. The amount is not, however, paid in cash, but the equivalent in grain is given at the prevailing prices. A deputy (*khalífa*) of the Saiads collects this contribution (*thuk*) and retains one-sixth of the proceeds for his trouble. Similar services are performed by the village Shahé who is paid one netful (*trangar*) of harvested wheat and a man's load of ears of *juári* per *tír*.

Labour is employed in the Pass on the railway line, the military road and at the mines. Most of the labourers are from India, but a few local men have taken service in the Railway gangs, and the poor among the Méngal, Rahéja, Jatoi, Chotai and other Kuchiks also occasionally work. The wages paid by the Railway are 6 annas for day labour or Rs. 10 by the month; in the Military

RENTS, WAGES AND PRICES.

Works Services the rate is 5 annas and 4 pies a day. The majority of the coolies employed at the coal mines are Makránis, and they are paid at the rate of 8 annas a day. Jamadárs get Rs. 20 to Rs. 30. The wages of sweepers and *bhishtis* are Rs. 9, of *chaukídárs* Rs. 10 and of carpenters and blacksmiths from Rs. 30 to Rs. 35. The levies are local men and the pay of a footman is Rs. 9 and of a sowar Rs. 18 per mensem. Some of the vernacular writers in the Bolán are paid less than anywhere else in the Agency, their wages being only Rs. 9 per mensem.

Prices.

The prices of wheat and *zurrat*, as also of straw, firewood and salt for the ten years ending with 1902 are given in table IV, Volume B. The average price of wheat in the first quinquennium was $14\frac{1}{8}$ seers and in the second quinquennium $11\frac{9}{16}$ seers. The railway has had the effect of rendering prices in the Bolán intermediate between those prevalent in Quetta and Sibi, as will be seen from the following statistics of the price of wheat in seers per rupee :—

	Quetta.	Sibi.	Bolán Pass.
1893 before the Mushkáf Railway was opened ...	$10\frac{1}{2}$	13	10
Average of 1893 to 1897...	13	$14\frac{3}{4}$	$14\frac{1}{8}$
Average of 1902	$11\frac{1}{4}$	$13\frac{1}{2}$	$11\frac{9}{16}$

WEIGHTS AND MEASURES.

Measures of weight.

Before the British occupation, the *Kaláti sér* of 88 *tolas* was in use, but Indian weights with a seer of 80 tolas and a maund of 40 seers have since been introduced in the bazars. The actual weights now in general use are those of 5 seers, $2\frac{1}{2}$ seers, 2 seers, seer, half a seer, quarter seer, one eighth of a seer, a chittack and half chittack. A maund of straw is usually calculated at 82 lb.

Measures of grain.

4 pinrki	=	1 topa.
4 topa	=	1 kása.
60 kása	=	1 kharwár.

Outside the bazars, grain is still sold by wooden measures and not by weight. The lowest unit is a *pinrki* and the marginal table shows the others. The *kharwár* is merely

nominal, the wooden measures in daily use being the *topa* and *kása*. The capacity of this *kása* varies with the kind of grain measured; on the average the equivalent in standard weights is about 6½ seers of wheat and 6 seers of *zurrat*. WEIGHTS AND MEASURES.

Other measures of weight.

Fodder and fuel are sold by the camel load or bullock load, and also by the *bad* or *bhari*, i.e., the load which a man carries on his back or head. *Bhúsa* is ordinarily sold by the heap (*satti*) or by the bag, a bag usually containing about 1½ maunds.

Linear measures.

In the bazars the standard yard of 16 *girahs* or 36 inches is in use, but the people of the country still employ the cubit (*harish*) for measuring cloth. This is an indefinite measure and varies with the stature of the customer; it is measured from the projecting bone of the customer's elbow round the end of the middle finger, when extended straight, and back to the lower knuckle joint.

Superficial measures.

In 1899, a rough survey of part of the Kirta land was carried out in acres, roods and poles. Some of the leading men have vague ideas of these areas, but most of the people only recognise the irrigated land by the shares of water they hold, while unirrigated land is known by plots. The largest unit in irrigated land is a *tír* and it was ascertained in 1905 that for the spring harvest a *tír* represented a little more than 30 acres, and for the autumn harvest rather more than 24 acres. When it is necessary to divide land for cultivation, the division is effected by lots and measured by paces (*kadam*) or with a rope. The term *jora* is frequently used but has no definite value, merely denoting the amount of land that can be ploughed by a pair of oxen in twelve hours.

Measure of time.

A few people know the English months, but the Hindu calendar is commonly used with modified names for the months in certain cases. The names of these months

WEIGHTS AND MEASURES.

Measure of time.

with their English equivalents are given below:—

LOCAL MONTH.	ENGLISH MONTH.
*Chétr	March.
Wésákh	April.
Jéth	May.
Arhar	June.
Sánwan or bashám	July.
Bádré	August.
Assún	September.
Katti	October
Mangir	November.
Poh	December.
Mángh	January.
Phaggunr	February.

The days of the week are a mixture of those recognised by Muhammadans and Hindus, Saturday being the first day. They are: *chhanrchanr*, *áchar*, *sumar*, *angáro*, *arba*, *kamís* or *khamís* and *jumma*. The day (*rosh*) and the night (*shaf*) are divided into the following parts:—

Mazén or kukar báng.	Cock crow.
Rocha tik	Dawn.
Chásht	About 9 A. M.
Goél	Time of morning meal.
Nér moch or ném roch.	Midday.
Sálar	Early part of afternoon, say about 1 P. M.
Awal or burz píshín...	About 2 P. M.
Píshín	Latter part of afternoon, say 3 o'clock.
Jahal píshín	About 5 P. M.
Dígar...	6 P. M.
Béga	Evening.
Rojak...	Sunset.
Shám...	An hour after sunset.
Khuftan	About 9 o'clock.

* *Chétr* begins about the middle of March.

WEIGHTS AND MEASURES.

Sari waháv ...	... First sleep, early part of night.
Ném shaf ...	... Midnight.
Zahri waháv...	... Latter part of night.
Sahír... ...	... End of night.

Currency.

The *paintri* (value about 10 annas) and the *zamán sháhi* (value about 5 annas) were current in former days, but British Indian coins, except the pie for which there is no local name, were used in the Pass long before its occupation by the British. The local names of the coinage are:—

Ním paisa	=	1½ pies.
Paisa	=	Pice.
Do-paisa or takka	=	Half anna.
Ním sháhi	=	Anna.
Sháhi	=	2 anna piece.
Páoli	=	4 anna piece.
Adhi or abbási	=	8 anna piece.
Rupai	=	Rupee.

MATERIAL CONDITION OF THE PEOPLE.

The improvement in the material condition of the Kuchiks has already been noticed; it is indicated by the better material used for dress both by men and women, by their more commodious huts and by the increase in marriage expenses. Simultaneously with the advent of security the railway has afforded a ready means for the export of any surplus produce, especially *bhúsa* which had no value in pre-British days. On the other hand, as has already been shown, the Kuchik cultivators have heavily handicapped themselves with debt.

MINES AND MINERALS. Coal.

Mr. R. D. Oldham, Deputy Superintendent of the Geological Survey of India, writing in 1891 about the coal resources of Quetta and the routes leading to it, remarked that the coal of Mach in the Bolán Pass had long been known and had been worked in a small, fitful way for some years. He examined exposures of coal on the left bank of the Bolán river, about 2 miles below

MINES AND MINERALS.

Mach and also at the southern end of the Bohr or Bhor hill.

Khán Bahádur Burjorjee D. Patel of Quetta commenced working coal from a ridge of the Pír Mard mountain about 1¼ miles from Old Mach in 1897 but this mine was flooded in May, 1901, and was not considered to be worth pumping out. Some prospecting work was then done on some other low ridges, locally known as Hurro, about half a mile east of the railway near Old Mach, and work is now (1905) proceeding here. The method of working is by sinking stentings and driving levels to meet them from the lowest point available. About 200 men are employed, chiefly Makránis.

Royalty is paid at 3 pies per maund on coal, and 1½ pies per maund on coal dust. Future leases (1905) are to be subject to modified rules issued by the Government of India in 1899. The output in 1904 was 2,550 tons of large coal and 897 tons of dust coal, valued at Rs. 25,458.

Petroleum.

The presence of petroleum at Kirta appears to have first attracted attention in 1889, when a boring was made near the foot of the hills to the west of the Kirta rest house under the superintendence of Mr. Townsend, who was in charge of the operations at Khattan in the Marri country. Oil was found at 360 feet but mixed with a quantity of warm sulphurous water. The boring was continued to a depth of about 500 feet with no good result but ever increasing volumes of water, and was eventually abandoned. A scheme for a fresh boring, suggested to be put down at a site which seemed to be more favourable, was also dropped.

The results of these borings and the prospect of obtaining oil in paying quantities, have been discussed by Mr. Oldham in the *Records of the Geological Survey of India*. He did not consider the immediate neighbourhood of the Kirta rest house promising,

but indicated a place, about 4 miles to the south, where the anticlinal, whose western half alone is seen at Kirta, is completed, and the beds bend over with a gentle rolling dip as a likely spot for a trial boring. Here the stratigraphical conditions are favourable, the beds lying with a low dip and being unbroken by serious faulting, while the broad flat anticlinal gives a good collecting ground, and the locality is easy of access from the Bolán road. Mr. Oldham also recommended that a few shallow pits, 20 to 30 feet deep, should be sunk near Kirta, as it was quite possible that they might collect a deposit of asphaltous material sufficiently rich to pay for working. Since this report was submitted no further experiments have been made. MINES AND MINERALS.

Sulphur was noticed in 1903 near Drájbét (or Dárjbént) levy post, 14 miles from Rindli, and one of the samples examined by the Reporter on Economic Products to the Government of India was found to contain 45·90 per cent. of pure sulphur which could easily be separated by some simple process of roasting and sublimation. As the earth yielded as much sulphur as ordinary pyrites with only half its specific gravity, it might, the Reporter on Economic Products thought, be exported in its natural condition as a source of sulphur for sulphuric acid manufacture or any other useful purpose in which sulphur was required. No capitalist has yet (1905) come forward to work the mine. Sulphur.

Building stone is extracted from quarries near Kolpur railway station. They were opened by the North Western Railway in 1885 to 1887 and used by the Railway exclusively up to 1890. In that year stone was obtained from these quarries for St. Mary's Church at Quetta, and it has since been utilised for other buildings. Building stone.

In 1900, samples of ores and clays from the Bolán were sent to Mr. Cleghorn, Consulting Engineer and Analyser, at Calcutta. The results of the analyses showed that the Cement, paint etc.

MINES AND MINERALS.

first sample, a yellowish clay, was rich in iron and had a sufficiency of carbonate of lime for the manufacture of a good quality of earthenware and terra-cotta. Another sample of clay, which was light grey but practically the same as the first, would, it was thought, be useful for the manufacture of Portland cement. A third sample, of a dark reddish brown clay, was reported as fit for the manufacture of paint. It was estimated that a useful magnesian Portland cement could probably be manufactured at a cost of about Rs. 4-5 per barrel from Bolán limestone.

Siláját
Br. *khalmolt*
Bl. *mehmai.*

Múmiái or *siláját* is found in small quantities in a hill about 1 mile from the Kundaláni levy post close to the tunnel on the military road, and is used locally in cases of bleeding, cough, and rheumatism.

ARTS AND MANUFACTURES.

There are no arts and manufactures in the Bolán. The women of well-to-do families do embroidery work in silk on their garments, the best designs being locally known as *hazhnál* and *baghdádi;* others are *mosum, chawar, súráni zurrati* and *khám kár*. The designs embroidered on the sleeves of shirts worn by men are known as *lopo, némdána* and *sujkun.*

COMMERCE AND TRADE.

The Bolán Pass has, from time immemorial, been the principal outlet for the trade passing from central Asia and Afghánistán to Sind, and as has been related in the section on History, the protection of the Bolán as a trade route was one of the causes which led Ahmad Sháh to attack Kalát in 1756, and it was with the object of opening the Pass that Sir Robert Sandeman was despatched on his first and second missions to the Khán in 1875 and 1876.

As a result of the second mission to Kalát, the treaty of 1876 was made with the Khán by one of the provisions of which freedom of trade was secured, subject to such conditions as the British Government might at any time in concert with the Khán, deem necessary for the pro-

tection of fiscal interests.

COMMERCE AND TRADE.

In 1862 so great was the general insecurity that the value of the total trade was computed at not more than half a lakh, but no sooner did caravans find that they were protected, than trade increased by leaps and bounds. From April 1 to December 31, 1876, 639 *káfilas* passed through the Bolán, the total value of the merchandise being computed at Rs. 20,68,772 while Rs. 40,765 were levied as transit dues and escort fees.

When the question of taking over the control of the Bolán arose in 1882, the Khán was levying dues at Mushkáf and Samungli, the ordinary rate being 8 annas per maund; but R. 1 per maund was levied on liquor, Rs. 6-8 per camel load on oil, and Rs. 11 per camel load on *ghí*. Half rates, 4 annas per maund, were taken on fresh fruit. Horses brought from Kandahár for sale paid Rs. 2-8 at Samungli and the same amount at Dádhar or Mushkáf, ponies being charged at half rates. Besides these transit dues, escort duty (*badrakki*) was levied at rates which varied with different commodities; the lowest amount charged was 1 anna per maund on ropes and the highest R. 1-8 on *ghí*, wool, pistachio nuts, madder, cumin seed, asafoetida, or carpets and *postíns*.

On the cession of jurisdiction and all other rights in the Pass in 1883, the Government of India sanctioned the imposition of a small tax of 1 rupee per laden camel, 8 annas per bullock or pony and 8 annas per laden donkey, going and coming. These rates were applied to the Harnai route also and after a six months' trial it was found that a sum of Rs. 38,431 had been realized on both. It was considered desirable, however, to free the trade from taxation, and the taxes were finally abolished on May 15, 1884, the total amount realized between that date and October 1, 1883, being Rs. 51,436.

Local trade.

The local trade of the District is insignificant, the principal articles of export being small quantities of wheat,

COMMERCE AND TRADE.

bhúsa, and *panérband* seed, and of import, piece goods, food grains and sugar. The products carried by rail, as shown in the following statement, include articles from the Dádhar *niábat* and also from Báriri and the surrounding villages and from Dasht and Marav in Sarawán. The statement shows imports and exports at the four principal stations in 1904:—

Name of article.	Kolpur.	Mach.	Píshi.	Mush-káf.	Total.
	Mds.	Mds.	Mds.	Mds.	Mds.
Imports	**50,402**	**11,082**	**558**	**7,579**	**69,621**
Wheat	...	55	36	571	662
Atta	...	3,783	80	...	3,863
Juári	**38,863**	5,994	236	189	45,282
Rice	**1,682**	110	6	1,208	3,006
Gram and pulses ...	...	...	62	1,254	1,316
Bhúsa	...	609	...	...	609
Ghí	...	100	9	261	370
Dry fruit	...	...	4	575	579
Sugar	2,087	186	3	685	2,961
Gur	557	197	7	869	1,630
Oils	488	34	5	216	743
Tobacco	...	...	...	1,019	1,019
Cotton piece goods ...	1,701	...	24	732	2,457
Other articles ...	5,024	14	86	...	5,124
Exports	**17,222**	**917**	**3,589**	**51,920**	**73,648**
Tobacco	12,079	...	...	...	12,079
Wheat	2,404	609	1,466	19,886	24,365
Dried fruit (apricot, mulberry and sinjid)	655	...	67	...	722
Pudhína and panér seed	315	158	97	...	570
Wool	...	20	48	161	229
Juári	...	60	39	8,134	8,233
Bhúsa	...	...	1,632	22,975	24,607
Rice	...	...	182	...	182
Cumin seed	...	10	...	...	10
Sajji (crude potash)...	...	60	...	...	60
Salt	...	...	...	139	139
Flour	...	...	...	625	625
Other goods	**1,769**	...	58	...	**1,827**

Trade is carried on entirely by Hindu *baniás*, who have shops at the various bazars. The grain and *bhúsa* from Kirta are generally exported by Commissariat contractors from Quetta, some of the Kuchiks acting as their agents. MEANS OF COMMUNICATION.

Railways, their early history.

The Mushkáf-Bolán Railway, on the standard gauge, enters the District from the south at Nári Bank, 5 miles from Sibi, and runs along the eastern side of the Bolán to Kolpur, whence it passes the Dasht plain and reaches Quetta at 87 miles. The branch from Nári Bank to Rindli is 11½ miles.

The line of railway which was constructed through the Bolán in 1885-6 commenced from Rindli, the first 47½ miles to Hirok being on the standard gauge and also the line connecting Dasht with Quetta. Between Hirok and Dasht metre gauge was used but this portion was subsequently changed into the standard gauge in 1888-9. The cost of the system was 111 lakhs. Soon after its completion, the line was seriously damaged by a heavy flood in July, 1889, and it was almost destroyed by another, and still heavier, flood in August, 1890.*

The Mushkáf-Bolán Railway.

It was clear that the first alignment could not be retained and the Mushkáf-Bolán Railway was commenced about the end of 1891, and practically completed by the end of 1895, and opened in 1897, the line between Abigum and Kolpur being subsequently doubled. Its total cost from Nári Bank to Quetta was Rs. 1,97,15,000. The tunnelling on the line, especially between Mushkáf and Píshi, was extremely heavy. The line is splendidly constructed, but the gradients are very steep in places, being as much as 1 in 25 between Mach and Kolpur. The Engineer-in-Chief of the line was Mr. James Ramsay.

The Quetta-Nushki Railway.

The Quetta-Nushki Railway starts from Spézand, 16 miles south of Quetta, and runs west to Nishpa (mile 5) where it passes through a tunnel, half a mile long, and follows the hills running south-west to the

*Article on "Frontier Railways," in the *Quetta Directory* for 1898.

MEANS OF COMMUNICATION. Mastung Road station. Continuing across the Mastung valley, it reaches Sheikh Wásil a narrow gorge about 5 miles long at mile 27 at the eastern end of which is the Sheikh Wásil station. The line thence runs south to the Galangúr Kotal or Sohro Sham (mile 53), where it enters the Chágai District. From Kishingi, near which a steep descent begins to the Nushki plain, the line turns south and slopes down along the broken hill side for 7 miles. The total length is 82 miles and the estimated cost is less than 1 lakh per mile. The line was opened for traffic on November 15, 1905. The steepest grade is between Nushki and Kishingi where it is 1 in 50. The principal works are the Nishpa tunnel through hard rock, and a short tunnel 365 feet long in the Sheikh Wásil gorge. The only important bridges are two over the Mobi, and two at Sheikh Wásil, the largest of the latter having 4 spans of 60 feet girders.

Since the opening of the railway, a great change has come over the Pass and it has been found possible to withdraw a portion of the levies for work at the head quarters of the Political Agent in connection with the Sarawán and Jhalawán tribes. In his report on the material progress of the District for the decade ending in 1901, Major H. L. Showers, Political Agent, observed: "The Railway is freely used by the tribesmen, and daily increasing numbers of the people travel by it in preference to going by road in the course of their annual migrations. It has an educating and civilising result which is doubtless producing its effects among the tribesmen. Local trade, too, is encouraged by the railway. For instance, Kirta *bhúsa* which would hardly be worth carrying to Quetta by road is now readily bought up by contractors and carried there by rail."

Roads. During the second Afghán war, a rough military road, fit for wheeled traffic, was built under the orders of General Phayre from Rindli to the head of the Bolán

Pass in the early part of 1879, and was then handed over to the Public Works department. It was much damaged by floods in 1880-81, and the Government of India decided in 1883 to build a high level road, the estimated cost being Rs. 17,94,541. The road which is bridged and metalled, starts from Rindli, at the mouth of the Pass and runs through the centre of the valley to Kolpur, and thence through Dasht to Quetta, a total distance of 86 miles. It passes through a tunnel about 10½ miles from Rindli and lies in the bed of the river between miles 48½ and 50¾ from Quetta. Details of the stages are given in table V, Volume B. Table VI, Volume B, contains a list of rest houses in the Pass. **MEANS OF COMMUNICATION.**

The principal paths branching off the main road are: (1) from Rindli to Dádhar (*c.* 2 miles), and from Rindli to Mushkáf railway station, 9 miles; (2) from south Kirta (or Gokurth rest house) to Kirta Kalán (*c.* 4 miles) and thence through Píshi railway station (*c.* 9 miles) to Sángán by Takari, and Debak (*c.* 25 miles); (3) from Bíbi Náni to Kalát by Jam and Báriri (*c.* 95 miles); and (4) from Abigum to Khajúri (*c.* 7 miles). The paths from the railway stations other than those from Píshi already mentioned are: (1) from Kolpur to Dasht, Marav, Isplinji and Kalát, and also through Dasht and the Surkh Bájo pass to Mastung; and (2) from Spézand to Nishpa and Mastung, and also to Zarkhu and Lés.

Transport. The transport animal chiefly used is the bullock, but, in winter, Bráhui camels are also available at Kirta and Rindli and two wheeled country carts run between Dádhar and the Mushkáf railway station. Rates of hire between Kirta village and Píshi station vary from 2 to 4 annas per bag, from 4 to 8 annas per bullock load, and from 6 to 12 annas per camel load. Between Rindli and Mushkáf the rates are 6 to 10 annas per bullock load and 8 annas to R. 1 per camel load. The rate of hire for bullock carts is about 1 anna per maund.

MEANS OF COMMUNICATION. Telegraph offices.

There are Telegraph offices at all the stations on the Mushkáf-Bolán and the Quetta-Nushki Railway.

Two sets of wires have been erected in the Pass, between Nari Bank and Mach, one running parallel to the railway, and the other along the military road.

Post offices.

The table below shows the names of post offices (1905) and their functions :—

Name of Post Office.	Head, sub or branch office.	M. (Can issue and pay Money orders.)	S. (Can transact Savings bank business.)	D. (Departmental office.)
Kolpur	Branch.	M.	S.	...
Mach	,,	M.	S.	D.
Rindli	,,	M.	S.	D.

Two runners are employed by the Postal department to carry mails between Rindli and Mushkáf and also deliver letters. Between Old Mach and New Mach the post is carried by levies.

FAMINE.

The irrigation of Kirta is secure and the produce is sufficient for ordinary requirements, and distress has never been known.

The system of *batái*, under which revenue is levied, is self-adjusting, and remissions and suspensions of revenue are seldom necessary. The only instance of a remission of revenue occurred in 1900 when, in consequence of damage done by floods, the payment of 50 maunds revenue grain was remitted. In 1896, the spring crop was damaged by rust and the recovery of revenue was suspended for a year.



Mushkáf Bolán Railway. Pir Panja bridge.

CHAPTER III.—ADMINISTRATIVE.

ADMINISTRATION AND STAFF.

The Pass forms part of the Agency Territories, and is under the Political Agent, Kalát, who in this capacity is styled the Political Agent of the Bolán Pass and Nushki Railway District. The entire District has been constituted into a single tahsíl. The official in immediate charge of the Pass is a tahsíldár, who is invested with civil and criminal powers, supervises the levies posted at the railway stations and along the military road and collects the land revenue. At Kirta, the only village where revenue is levied, a patwári is stationed. The question of the appointment of a *lambardár* for Kirta was considered in 1902 and the Native Assistant at that time in charge of the Pass, thought that if one were appointed, it would probably result in a larger area being brought under cultivation and in better harvests being obtained, as there was no one to look after the irrigation channel and much water ran to waste. The proposal was sanctioned, and Mír Wazír Khán, Banguláni, uncle of the Kuchik headman was nominated as the first *lambardár*, but the appointment was found to be unpopular and was subsequently cancelled. The Kuchik headman and the Jalambáni and Chotai *wadéras* now perform the duties required of village headmen or *lambardárs* without remuneration.

The officer in charge of the part of the Nushki Railway line between Spézand and Galangúr is the Assistant Political Agent, Kalát.

Previous to 1889, certain Indian laws had been extended to the District, and in 1890 the Baluchistán Laws Law, the Forest Law, and the Civil Justice and Criminal

JUDICIAL. Application of enactments.

Justice Laws were enacted for the Agency Territories and applied to it. The last two were modified in 1893 and re-enacted in 1896.

The Indian Arms Act XI of 1878, with the exception of of certain sections prohibiting the carrying and possession of arms without a license, was applied to the District in 1895; of the excepted portions, sections 13, 14, and the last 26 words of section 15 were subsequently applied to the bazars at Kolpur, Hirok, Mach, New Mach, Abigum, Píshi, Mushkáf and Rindli in 1902, and to all the Railway lands in the Agency Territories. The whole of the Public Gambling Act III of 1867 was applied in 1894 to the bazars which then existed at Dasht, Pír Panja, New Mach, Bíbi Náni, Kirta and Rindli, some of which have since disappeared, and also to the railway stations at Kolpur, Dozán, Hirok, Abigum, Píshi and Nári Bank. It was also applied to Mushkáf and Panír stations in 1898 and to the Nishpa tunnel, Sheikh Wásil and Godi Sheikh Wásil in January 1904.

Legal practitioners are not permitted to practise in the courts generally, but a pleader may appear in a court in any particular case, whether criminal or civil, with the permission of the Agent to the Governor-General. Petition-writers are of two grades, and their appointment is regulated by rules issued by the Judicial Commissioner in 1899. In the Bolán Pass the work is light and a levy *muharrir* has been licensed to practise as a petition-writer of the second grade.

Administration of civil and criminal justice.

The Political Agent combines the offices of Magistrate of the first class, District Magistrate and Sessions Judge and is a Justice of the Peace. He is also a Registrar under the Indian Christian Marriages Act XV of 1872 and under the Births, Deaths and Marriages Registration Act VI of 1886. For purposes of Civil Justice he possesses jurisdiction to try original suits without limit as regards value. A decree or order made by him in an

original suit of value not exceeding five hundred rupees, and in an appellate suit, the value of which does not exceed one thousand rupees, is final and subject only to revision. In criminal trials no appeal lies in cases in which he passes a sentence of imprisonment for a term not exceeding one year, or of fine not exceeding one thousand rupees, or of whipping, or of all or any of these punishments combined. The following table shows the subordinate courts, their ordinary powers and the courts to which appeals lie:— JUDICIAL.

Courts.	Powers in civil suits.	Powers in criminal cases.	Court to which appeals lie.	Remarks.
Assistant Political Agent, Kalát.	Rs. 10,000. Appeals from the orders of the Tahsíldar, Bolán Pass.	First Class Magistrate, Sub-Divisional Magistrate. Summary powers. Appeals from the orders of Magistrate, second class and Tahsíldar Bolán Pass and Nushki Railway Tahsíl.	Political Agent.	(1) Both the Assistant Political Agent and the Native Assistant have concurrent jurisdiction in the District, but in actual practice these powers are exercised by the Assistant Political Agent only (1905). (2) A decree or order made in an original suit of value not exceeding fifty rupees by the tahsíldár, or not exceeding Rs. 100, made by the Assistant Political Agent or Native Assistant, is final, but is subject to revision.
Native Assistant, Sarawán.	Ditto.	First class Magistrate. May hear appeals from the orders of Magistrate of the second class and tahsíldár.	Ditto.	

JUDICIAL.

Courts.	Powers in civil suits.	Powers in criminal cases.	Courts to which appeals lie.	Remarks.
Tahsíldár, Bolán Pass and Nushki Railway tahsíl.	Rs 300.	Magistrate of the second class	Assistant Political Agent or the Native Assistant.	(3) No appeal lies in a criminal case in which a Magistrate of the first class passes a sentence of imprisonment for a term not exceeding six months only, or of fine not exceeding five hundred rupees only, or of whipping only.

Jurisdiction as regards the trial of cases by judicial procedure is confined to the neighbourhood of the Mushkáf-Bolan Railway and the Bolán military road. Now that all construction work has ceased, judicial work is limited to petty cases, which occur in the bazars or among the workmen employed on the railway. Cases in which the indigenous population is concerned are referred to councils of elders, a system which is referred to later in this chapter.

Civil Justice

Table VII, Vol. B, gives details of civil suits disposed of by various courts. In the quinquennial period 1893-4 to 1897-8, the average annual number decided was 1,285, of which 851 were original, 17 appellate, and 417 cases for execution of decree. During most of this period the Mushkáf-Bolán Railway was under construction, in consequence of which a good deal of civil litigation arose, to cope with which a Munsiff was appointed between 1893 and 1896.

During the quinquennial period ending with the 31st of March 1903, the annual average fell to 131, of which 89 were original, 1 appellate, and 41 cases for execution of decree. During 1904-5, when the Quetta-Nushki

Railway was under construction, the number of civil suits again rose to 194 of which 138 were original and 56 for execution of decree. JUDICIAL.

In regard to civil work, Major A. McConaghey, Political Agent (1905) remarks: "All the civil suits occur almost entirely in connection with moveable property and are decreasing both in number and in value, and the reason for this is that all construction work has ceased and the small permanent population is now practically limited to persons connected with the railway. Owing to the barren nature of the country and the want of internal communications, it is not likely that any considerable town or bazar will spring up in the Pass and there is no prospect of any appreciable increase in the present numbers of the population, unless construction works are again commenced. The cases brought before the civil courts are mostly petty and are instituted chiefly by local *baniás* and railway employés. Occasionally a local Bráhui or a levy sowár, who has dealings with the bazar *baniás* is involved. There are very few appeals, and this may be accounted for by the fact that the amounts involved are generally so small that it is scarcely worth the while of the parties to proceed any further with the case."

Details of criminal cases, disposed of during the decennial period ending with March 31, 1903, will be found in table VIII, Vol. B. The annual average number of trials during the quinquennial period 1893-4 to 1897-8 was 157, of which 154 were original and 3 appellate. In the second quinquennial period the annual average fell to 33 of which 32 were original and 1 appellate. During 1904-5 a good many aliens were attracted by the works on the Quetta-Nushki Railway and the number of criminal cases rose to 72 of which 47 were connected with persons on the works. Of the total, 70 were original and 2 appellate. "There is," says the Political Agent, "comparatively Criminal Justice.

JUDICIAL. little crime, and the average of the last three years, 1901 to 1902-3, which is 27, may be taken as representing the number of cases which may be expected to occur under present conditions."

Jirga cases. The system of the disposal of cases of all sorts by the elders of villages or tribes is indigenous to the country; the procedure is simple and has many advantages. It has been regularised from time to time by certain special regulations, the latest being the Frontier Crimes Regulation III of 1901, which has been applied to the Agency Territories with certain modifications. The system possesses special advantages when worked in conjunction with the levy system under which crime in the areas outside the towns and bazars is investigated by the headmen and levies. At the same time it requires continuous supervision by the District Officers to prevent abuses arising from ignorance and partiality. Cases are considered either by local or *sháhi jirgas*. Ordinarily the Political Agent may sentence an offender on the findings of a *jirga* to seven years rigorous imprisonment; a sentence exceeding this term up to a maximum of fourteen years must be confirmed by the Agent to the Governor-General, to whom appeals lie in certain cases.

The annual average number of cases decided in the three years 1895-6 to 1897-8 was 92. In the quinquennial period 1898-9 to 1902-3 it was 32. Of the 32 cases disposed of annually during the quinquennium, 2 were of murder, 3 of robbery, 9 referred to land and revenue, 1 was connected with marriage, 2 were of cattle lifting and 15 were miscellaneous. There was only 1 adultery case in five years. Details are given in table IX, Vol. B.

The following remarks, made by Major McConaghey, explain the *jirga* system as it is worked in the Kalát Agency and the Bolán Pass District.

"It is difficult to arbitrarily define the classes of cases, which are referred either to the *sháhi* or local *jirgas*, but

the general rule is that important cases are submitted to the former, while ordinary cases are dealt with by local *jirgas*. In practice, cases of the following nature are usually reserved for the *sháhi jirgas*:—cases recommended by the local *jirgas* for transfer to the *sháhi jirgas*; cases where local party feeling is known to run high; cases in which one of the parties has a preponderating local influence; intertribal cases which present important issues; cases in which the chiefs of two different tribes are concerned; inter-district cases when arrangements for a local *jirga* cannot be arrived at; and finally, cases involving issues connected with tribal customs and usages, regarding which it is desirable to obtain a ruling from a full bench of sardárs. There are, however, no hard and fast rules and the Political Agent has power to exercise his discretion in connection with the disposal of each case. JUDICIAL.

"In order to avoid delays and the necessity of dragging parties and witnesses long distances from their homes as many cases as possible are referred to local *jirgas*.

"The Kalát representatives of the *sháhi jirgas*, are limited to the recognised chiefs of the more important tribes. As regards local *jirgas*, the selection of the members is made by the officer concerned and is determined by the importance and character of the case or cases to be laid before the *jirgas*. In petty cases, the local headmen are generally chosen; in more important cases the local sardárs are also nominated; while in special cases the *jirgas* are composed of the principal sardárs of the State.

The advantages and disadvantages of the system.

"The *jirga* system is in consonance with the traditions of the country and the awards are generally acceptable to the parties concerned. The system is suited to the people and the arrangements in force are convenient and on the whole work satisfactorily. Its advantages may be summed up as follows. It is suited to the country and to the people, it is cheap and in cases governed by tradition

JUDICIAL. or relating to local usage and practice its working is satisfactory and effective.

"The faults, or rather weaknesses, are those which may be found in all purely local tribunals, and decisions are apt to be governed by local sympathies and prejudices. Owing to the constitution of the *jirgas* it is difficult to eliminate the factor of interest and, as might be expected, favour is shown to men of influence and standing to the prejudice of the poorer suitors. It has also been noticed that in cases which concern their own interests, the voting of the *sháhi jirgas* is sometimes governed by private feelings or party considerations."

Fanatical outrages. Fanatical cases are dealt with under the Murderous Outrages Regulation IV of 1901. Among its more important provisions may be mentioned the power, which it gives to the Sessions Judge or Political Agent of the District or to any Magistrate of the first class, especially empowered by the Local Government, Sessions Judge, or Political Agent after the commission of an offence, to try a fanatic, to pass orders as to the disposal of the offender's body and to forfeit all his property to Government. No appeal lies from any order made or sentence passed under the Regulation and the court may, on the recommendation of a council of elders or after such enquiry as it may think necessary, take measures against any community or individual, with whom a fanatic is or has been associated in circumstances which satisfy the court that, by reasonable prudence or diligence on the part of such community or individual, the commission or attempted commission of the offence might have been prevented. Such measures include fine and forfeiture of revenue-free grants, remissions and allowances.

Cases of fanatical outrage are rare, there having been only one during the decade ending with March 1903. This was committed in November, 1899, by Muhammad son of Barát, Chapráni, Mazaráni Marri, who shot a

guard at Mach station while the latter was superintending the unloading of a waggon. The fanatic was tried and hanged. Tribal responsibility was strictly enforced, all the fanatic's male relatives and the *mullá* of his village were arrested and kept in confinement for some months, until the tribal section to which the fanatic belonged had paid up the fine of Rs. 1,000, imposed by the *sháhi jirga* at Sibi. All arms found in the village were confiscated and destroyed. JUDICIAL.

Major McConaghey remarks in regard to such cases :—

"I am inclined to think that the real religious fanatic, who gives his name to this particular crime, is not often met with and that the majority of the outrages are committed by men who are really insane or whose minds have become temporarily unhinged by sorrow or trouble or by brooding over real or imaginary grievances. For instance, the immediate cause of the Bolán case quoted above was the death of the only son of the so called fanatic. It is also a curious fact that a proportion of such criminals are men who suffer from some form of bodily defect or disability, such as impotence.

"At the same time the form which the crime takes is due to the religious teaching of the *mullás*. The measures, which have been taken from time to time to enforce tribal and family responsibility, have discouraged their views and have proved effective in decreasing this particular crime, and it may perhaps be hoped that this decrease is also due to a certain extent to the increase of civilization among our people. The later methods of procedure adopted in dealing with such cases are also satisfactory, inasmuch as they tend to eliminate the religious factor and do away with the glamour of martyrdom."

The Indian Registration Act III of 1877, is in force in the District. The Political Agent is the Registrar, the Registration.

Registration. tahsíldár a Sub-Registrar and the *Native Assistant, Sarawán, a joint Sub-Registrar. The indigenous population is still ignorant of the advantages of registration, and transactions are executed among them either by verbal agreement or by a deed which the village *mullá* is requisitioned to draw up. The little work that has been done by the registration office is chiefly connected with the alien population. During the decennial period ending with March 31, 1903, the total number of documents registered was 130, of which registration was compulsory in 129. The total receipts were Rs. 212, and the expenditure Rs. 111. Mutation registers are maintained by the patwári of Kirta, but as the land is not held individually he has very little to do.

FINANCE. Like the area and population, the revenue derived from the Pass is insignificant. It comprises land revenue, court fees, fines, excise and salt revenue and registration fees. It has varied with the increase or decrease of the alien population, which affects almost all the sources, not excepting the land revenue. Up to 1897 the revenue and expenditure were included in the accounts of Quetta, but since 1898 these accounts have been separately maintained and included in the quasi-Provincial contracts.

In 1891-2 the total revenue of the District was Rs. 4,943-2-3, but during the four following years when the Mushkáf-Bolán Railway was under construction the annual average receipts were Rs. 28,904, to which Excise contributed Rs. 16,632-8-0 and Stamps about Rs. 7,640. On the completion of the works the receipts fell to Rs. 9,541-2-7 in 1896-7. The average annual income from all sources during the quinquennial period 1897-8 to 1901-2, details of which are shown in table X, Vol. B, was Rs. 11,018, to which Excise contributed about 47 per cent., and Land Revenue 30 per cent., while the

*Assistant Political Agent appointed joint Sub-Registrar in place of Native Assistant in May 1906.

balance was made up of stamps, fines and miscellaneous receipts. In 1902-3, the revenue was Rs. 8,618, to which Land Revenue and Excise contributed about 46 and 41 per cent. respectively.

LAND REVENUE.

Early history.

In pre-British days the Kuchiks, like other tribes, were required to furnish the Khán of Kalát, through the Rind chief, with a quota of men-at-arms in cases of emergency, and, for the purpose of calculating their relative share, their total strength was computed at 500 fighting men. When a call was made, one man, out of the total of those to be found, was furnished by the Banguláni section, the remainder being supplied in equal numbers by the Jalambánis including the Bulánis and Siáhpáds, and by the Chotais. The Kuchiks also had to provide supplies free of cost to the Khán's troops when marching through the Pass as a condition of their holding the Kirta land.

Imposition of revenue in 1892.

From the transfer of jurisdiction to the British Government in 1883 up to 1891 no land revenue was levied in the Bolán. In 1892, one-tenth of the gross produce was ordered to be collected under circumstances which will be detailed presently. In 1901, the rate was raised to one-eighth, and in the following year to one-sixth, the general rate levied in other parts of the Agency in which revenue is taken in kind.

It may be mentioned here that persons who own and cultivate the flats between Kirta and Naoling, except Aligul Bént, have to pay one-fifth of the produce to the members of the Banguláni *sardárkhél*, after the deduction of the Government revenue and the wages of village servants. The proceeds are divided equally among the descendants of (a) Fatéh Khán and (b) Samand Khán with Pakár Khán.

The Land Revenue of the Pass also includes receipts from Government land at Rindli, the sum of Rs. 84 paid by the Military Works Service as the rent of the water used for the garden attached to the inspection house at

LAND REVENUE.

Rindli, and a share (one-sixth) of the sum of Rs. 304 paid annually by the North Western Railway for water drawn from the Bíbi Náni spring for stations on the Mushkáf-Bolán Railway. The receipts also include the royalty taken on coal at Mach. Grazing tax is not levied.

Since the imposition of revenue, the receipts in each year have been as follows :—

	Rs.		Rs.
1892-3	1,782	1893-4	2,463
1894-5	755	1895-6	3,650
1896-7	757	1897-8	4,168
1898-9	2,289	1899-1900	4,333
1900-01	3,222	1901-2	2,897
1902-3	3,946		

The land revenue in cash and kind levied in each year from 1897-8 to 1902-3 is shewn in table XI, Volume B. The revenue is generally realized by actual division of the produce (*batái*), but it is sometimes assessed by appraisement of the standing crops (*dánabandi*). In the case of fodder crops, the system followed is that known as *moki*, i. e. assessment in cash. The rate of assessment is not heavy but, owing to the exemption from taxation which they enjoyed up to 1891, the people feel the burden, especially those who own flats and have, therefore, to pay a share, as already mentioned, to the members of the *sardárkhél*.

Land tenures, origin and character of tenants, and division of land.

According to local accounts, the parcelling out of the Bolán among the Kuchiks and surrounding tribesmen dates from the period of their headman, Lashkar Khán I, in whose time Kuchik power and influence materially decreased. The Kúrds at this time obtained the parts to the north of the Pass from Spézand or Spésund to Muhammad Guzzi near Kolpur; the Sahtakzais, from Muhammad Guzzi to Kabristáni Béut or Old Mach; the Mandwáni Rinds from Old Mach to Bíbi Náni; the

Kuchiks from Khajúri to Kundaláni; and the Shahwánis, the southern part below Kundaláni. It is from this distribution that the proprietary right of the Kuchiks in their lands had its origin. They held this, as stated above, on the condition of providing service for the Khán of Kalát. The *hamsáyáhs*, who shared in their good and ill and assisted the Kuchiks in finding their share of *gham*, also participated in the land and water. The feature of the proprietary tenures is the periodical distribution of the common land *per capita* for every crop. Connected with this is a curious custom by which land is sometimes given to a respectable man of an alien tribe for one or more harvests if he happens to be present at the time of the periodical distribution. This happened in October 1905, when, at the time of distributing the land for the spring harvest of 1906, a share was allotted to one Shakkar, a Pug *motabar*.

LAND REVENUE.

Government is the sole collector of revenue in the land in the Láléji plain and the flats between Kirta and Naoling, but in the latter the *sardárkhél* also levies one-fifth of the produce. In other parts of the Pass, namely the flats between Muhammad Guzzi and Mach and between Naoling and Pír Chauki, no revenue is levied.

Tenants.

Most of the cultivators are peasant proprietors; the only other class represented in the District are tenants (*ráhak*) most of whom are tenants-at-will engaged a couple of days before the land is divided for each harvest. In some instances, however, a tenant who has cultivated *zurrat* is not ousted until after the wheat harvest has been gathered. A few tenants, who have constructed embankments in the dry crop lands, have acquired a species of occupancy and alienable right for as long as the embankments are kept in good condition.

Early disputes about the land in Kirta.

The history of the existing tenures enjoyed by the people of Kirta and the imposition of revenue are closely connected and the following account covers both. About

LAND REVENUE.

Disputes about land.

1873, in the time of Sardár Til Khán, the Thingiáni Marris, under the leadership of their headman, Piárá, raided the Kuchiks, killed five men, wounded several, plundered the village and set fire to it, and the Kuchiks deserted in a body to Dádhar. Two years later, when Sir Robert Sandeman, opened the Bolán to traffic, he induced the Kuchiks to return to Kirta with the object of creating a barrier against the Marris. Til Khán, the headman, and his section, the Banguláni, thereupon settled at Kirta, but the two other sections, the Jalambáni, and Chotai, did not accompany him. On seeing, however, that peace and security were maintained, they began to put forward claims to the land, and disputes began. These claims were heard by a *jirga* in 1881. It was found that the Kháns of Kalát had given the Kirta land to Kuchiks on condition of their permanently settling in the place to act as a buffer against the Marris, of their maintaining the safety of the road, and of their furnishing supplies free of cost to the Khán's troops when traversing the Pass, and a finding was arrived at, that the Jalambánis and Chotais could not establish their claim to the land unless they carried out these conditions. The latter refused, however, to come and live at Kirta, and disputes went on. They were referred to a second *jirga* in 1884, which confirmed the decision of the previous one. In 1889 a mutual agreement was arrived at but the parties could not be induced to adhere to it. In 1890, the disputes came before a *jirga* at Ziárat, and, after a hearing for several days, a lengthy decision was recorded and signed by Sir Robert Sandeman. This, however, did not end the quarrel, and the case was again taken up by a *jirga* on the 27th of July, 1891, which came to a detailed decision with regard to the matters in dispute. The parties in the case were Shakar Khán, Wazír Khán, Nabi Bakhsh, and Bahádur Khán, Bangulánis, of the Sardár's section on the one side, and Tamáz Khán,

headman of the Jalambánis, and Islám Khán, Chotai, on the other. The decision of the *jirga* is so important that it is printed in full as appendix V. The *jirga* not only decided the disputes between the Kuchiks, but recommended the imposition of revenue, at the rate of one-tenth, to cover the cost of stationing a Government official at Kirta with the object of preventing disputes in the future.

LAND REVENUE.

Disputes about land.

In submitting the award of the *jirga* to the Agent to the Governor-General, Captain Temple, Political Agent, Kalát, observed: "These disputes refer chiefly to the manner in which the land is to be divided. The whole arrangement is very complex, but divested of details it may be observed that the Kirta lands are held on a tenure peculiar to the place and which is not in vogue anywhere else. The land has to be divided yearly* in proportion to the number of persons present; the Sardár and his section, the Bangulánis, having special rights. This division is a matter of extreme difficulty and invariably leads to disputes. The present sardár, Shakar Khán, is a young man wanting in the necessary ability to rule a turbulent tribe. He cannot do the work, and a Government servant is required for the purpose of carrying out a variety of details in connection with the separation of the lands from one another and their division between the claimants. The lands require measuring and a plan should be made of them. Now that the Jalambánis and Chotais are settling at Kirta, the population will considerably increase, and a man is required to look after them to prevent interminable quarrels from arising and for the prevention of bloodshed, the settlement of which has taken up so much time not only of Government officers but of the *jirga*." The proceedings of the *jirga* were accepted by the Agent to the Governor-General, Colonel J. Biddulph, in September, 1891,

* The land is divided for each harvest. Ed.

LAND REVENUE.

and the imposition of land revenue was authorised. In communicating these orders to the Political Agent, Kalát, the First Assistant to the Agent to the Governor-General wrote: "Colonel Biddulph notes that the land over which the disputes have arisen was granted to the Kuchiks on the condition of their holding the country in their neighbourhood against the Marris, and of supplying His Highness the Khán of Kalát's troops free of cost. Neither of these services is now required of the Kuchiks. The taking of revenue from them appears, therefore, to be unobjectionable, even if a larger proportion than one-tenth were demanded."

Measurement of the land.

It was not, however, until 1899 that the recommendations of the *jirga* regarding the measurement of the Banguláni lands were carried out. The fourth share of the headman and his section was represented by the following:—

	Irrigated.	Cultivable.	Dry crop.	Waste.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.
Banguláni fourth..	489	161	...	322	972
Niám digár ...	156	43	...	16	215
Séri	4	...	...	3	7
Chunra	22	...	...	...	22
Sardár's individual property ...	113	166	...	109	388
Common land ...	...	...	202	7	209
Total ...	**784**	**370**	**202**	**457**	**1,813**

Water for *niám digár* lands.

The question of the share of water to which the Kuchik headman was entitled for his *niám digár* lands was referred to a *sháhi jirga* at Quetta in September 1900, when it was decided that he was entitled to 7 *tírs* of water in Damb, and 6 *tírs* in the Píshi, Alábég, Thal, Shahrpad, and Drabbi lands.

Periodical distribution of land and water.

The localities just named, together with Kund in which the headman has no *niám digár* and has 6 *tírs* of water, are those which are subject to periodical distribution. Píshi has not been cultivated owing to the failure of the

LAND REVENUE.

supply of irrigation water for the last twenty years. The one-fourth of the land, to which the Bangulánis are entitled, and the headman's *niám digár* have been measured and set apart as described above. In Damb and Shahrpad, the *chúnra* lands have been demarcated; in other tracts the members of the *sardárkhél* are given one *tír* for this purpose. *Séri* is recognised only in the Damb land and it has been demarcated like the *niám digár*.

The remaining three-fourths of the land have not been surveyed. The joint owners are the Jalambánis, Bulánis, Siáhpáds and *hamsáyáhs* and certain Bangulánis, the shares of the latter at present (1905) amounting to 37 *shabánas*.

The division takes place three times in a year: for the *gandím* or spring harvest in October, for the *chétri*, or fodder and melon crop, in April, and for the *bashámi* or autumn harvest in August. Certain shares are first set apart for charity and other miscellaneous purposes; in 1905 they amounted to an aggregate of 17 *shabánas*. As a general rule, the *wadéras* of the Jalambáni and Chotai sections each get 3 *bit*, and the eldest man in each family gets 1 *bit* in addition to any other share to which he may be entitled, while each of the remaining adult males, who is permanently residing at Kirta at the time of distribution, receives a *shabána*.* A majority of those present at the distribution may vary such shares, and such a majority may also give a share to a respectable or deserving man of another tribe as a favour; such grants are only temporary and do not entitle the recipient to participate at future distributions. An adverse vote of the majority cannot deprive any man of his share so long as he is permanently residing in the village.

On the day fixed for the distribution, all the headmen and as many of the co-sharers as are present assemble in

*2 *Shabána* =1 *bit*; 4 *bit* =1 *tír*.

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Periodical distribution of land and water.

the *patwárkhána*. A heap of dry sheep or goat droppings (technically known as *tír*) are placed in front of an old man who is an expert† in the matter, and who puts one or more droppings for each individual in a separate heap; one dropping represents a *shabána*, 2 a *bit* and 8 a *tír*. When all the names have been announced, the droppings are counted and divided by eight, the result being the *tírs*. If the locality to be divided is the one in which *chúnra* is admissible and has not already been demarcated, 1 *tír* is added on that account. In the Damb tract the *chúnra* is 2 *tírs*, the *séri* lands are entitled to half a *tír*, and the Kuchik lands called Gángo to 1¾ *tírs*.

The total number of *tírs* having been ascertained all the shares are collated into *tírs*, each *tír* being called after the name of the most important person partaking in it. Thus two men owning 2 *bit* or 4 *shabánas* each or eight men owning 1 *shabána* each make 1 *tír*.

Different parts of the principal localities are called by distinguishing names and their qualities and the number of *tírs* they represent are approximately known. At the time of the distribution, the names of the tracts to be cultivated for the next harvest and their approximate area in *tírs* are announced. Thereupon each person, after whom a *tír* has been named, makes some distinctive mark on a dropping and hands it over to the expert who collects all the *tírs* in his hands. Now is the time of great excitement. The old man shakes the *tírs* in his closed fists; the audience cries, *chhalko chhalko*, i.e. "draw the lot," and as each *tír* is drawn the name of the person concerned and the particular plot of land for which the lot is being drawn are announced. After being allotted their plots, the co-sharers in it roughly divide it into the number of *tírs* they have drawn, and distribute the plots, the sharers in one *tír* generally cultivating the land

† The present expert (1905) is Dili Ján, Shádénzai.

jointly. For cultivation, distribution by sections is not maintained. A Chotai may have to join a *hamsáyáh* or a Jalambáni may be associated with a Banguláni. LAND REVENUE.

The next step is to distribute the water. For this purpose, after the total number of *tírs* into which the three-fourths of the land to be distributed has been ascertained, a third of the whole amount is added on account of the Banguláni share, and also the *tírs* of water to which the Kuchik headman is entitled as *niám digár*, viz., 7 *tírs* in Damb and 6 *tírs* elsewhere. Special rules apply to the case of the Damb land. Here, after the amount required for the Kuchik three-fourths has been ascertained, 1 *tír* is added to the Kuchik share on account of the Gángo land, after which one-third of this total is apportioned and added for the Banguláni share, 2 *tirs* for *chúnra*, half a *tír* for *séri*, and three-fourths of a *tír* on account of the balance of 1¾ *tírs* to which the Gángo land is entitled.

Elsewhere, as already mentioned, the additions to be made on account of *chúnra* and *niám digár* are 1 *tír* and 6 *tírs* respectively; in the case of the Shahrpad land, the third to be given to the Bangulánis is added before the *chúnra* and *niám digár*, while elsewhere except Damb, *chúnra* is first added to the Kuchik's share, then the third for the Banguláni share, and lastly the *niám digár*. The result is the total number of *tírs* into which the water is to be divided.

A detailed record of each distribution is maintained by the patwári.

Actual division of the Drabbi land in 1905.

The system followed may be illustrated by the division of the Drabbi land which took place at Kirta in October 1905 for the ensuing spring harvest. The number of *tírs* arrived at was 24 *tírs*, 1 *bit*, 1 *shabána*, the details being shown in the margin. The Drabbi land is divided into four tracts known

	Tír.	Bit.	Sh.
Bangulánis ...	4	2	1
Jalambánis ...	6	3	1
Siáhpáds ...	3	0	1
Bulánis ...	0	3	1
Chotais ...	2	1	1
Hamsáyáhs ...	4	1	1
Charitable etc...	2	0	1
TOTAL...	**24**	**1**	**1**

LAND REVENUE.

as Dur Khán, which is assumed to represent 16 *tírs*, and Séhn Kunar, Drakhánr and Sabz Rékh which together represent 8 *tírs*. The total number of co-sharers was 116 who distributed themselves into 24 *tírs* each having a representative. Lots were first cast for the Dur Khán plot, and 16 shares allotted to the representatives whose lots were drawn. The recipients of the 3 *shabánas* in excess of the 24 *tírs* and the *ráhaks* or tenants of the 1 *tír* for *chúnra* were also given allotments in the Dur Khán plot. The detailed distribution has been indicated in table XII, Vol. B., which, though liable to modification at each distribution, will, it is hoped, be useful for future reference. It gives an idea as to the manner of the distribution and might with advantage be corrected at each distribution.

To the *tírs* thus arrived at, 1 was added for *chúnra*, making a total of 25 *tírs*, 1 *bit* and 1 *shabána*; a third of this amount was added on account of the Banguláni share and 6 *tírs* for the *niám digár* lands, making a grand total of 39 *tírs*, 3 *bits*, 1 *shabána* into which the Bíbi Náni water had been divided for the spring harvest.

Division of land among the Bangulánis

The three groups of the Bangulánis are the Pakár Khánzai, Samand Khánzai, and the Fatéh Khánzai. Half of the *chárak* (or quarter) of the land set apart for the Bangulánis belongs jointly to the Samand Khánzais and Pakár Khánzais and the other half to the Fatéh Khánzais. These groups, in their turn, divide their shares *per stirpes* (*pidri taqsím*), and each family distributes its share among its male members *per capita* (*mardán sar*) as is done by other Kuchiks. Their individual shares in 1905 are also shewn in table XII. The Banguláni share in the Ala Bég, Píshi, Thal and Sháh Kahír part of Shahrpad and in half of Drabbi is held jointly and is divided for each harvest; a division has been made of the remaining half share in Drabbi for a period of twenty years from 1897; the share in the Damb tracts has been

LAND REVENUE.

divided for two harvests ending with the spring harvest of 1906, while the Manryár portion of Shahrpad has been permanently divided among the two main divisions, viz. the Fatéh Khánzai and the Samand Khánzai *cum* Pakár Khánzai.

Joint possession of dry-crop land.

The dry crop lands within the Kuchik limits have not been divided, and the Banguláni and other Kuchiks and *hamsáyáhs* who participate in the Kirta irrigated lands hold proportionate rights in the dry-crop area. The *niám digár* share of the headman in the Takari tract is 4 *tírs* and his *chúnra* share 1 *tír*. The former is given in one *band* only which lies in the north of the tract.

Size of holdings.

In the absence of a detailed survey no definite information is available regarding the size of holdings. As already mentioned, estimates made by the local *patwári* show that a *tír* represents 30 acres, 1 rood and 15 poles under the spring crop and 24 acres, 1 rood and 4 poles under the autumn crop, making a total of 54 acres, 2 roods and 19 poles. Thus a man whose share is a full *tír*, and such cases are only a few in number, cultivates about 54½ acres of land in a year, the holder of a *bit* about 13 acres, and that of a *shabána*, the lowest unit of division, about 6½ acres. At the distribution of October 1905, for the spring harvest of 1906, 57 men each received 1 *shabána* in the Kuchik land, 50 men each received 1 *bit*, and the remainder of the co-sharers larger amounts.

Government land and water.

Government owns the land occupied by the Nári Bank-Rindli section, the Mushkáf-Bolán, and the Quetta-Nushki Railways, and various military buildings and camping grounds on the Bolán road.

The exact area of the land acquired at Rindli for different departments of Government has not been ascertained, but the marginal figures appear in a note recorded in the office of the Native Assistant, Bolán, in 1897. Government also

	A. R. P.
Civil department	6—2—2
Railway	15—0—4
Military	46—0—7

LAND REVENUE.

owns 10 out of 34½ *angusht* of water in the Kunari channel at Rindli. The distribution of this water has been mentioned under Irrigation. Most of the Rindli land has been leased to a *zamíndár* of Old Rindli, who paid two-fifths of the produce up to 1902 as rent and revenue, an amount which was raised to one half in 1903.

Government also owns about 2 poles of land occupied by the *patwárkhána* at Kirta village, and 7 acres, 1 rood and 21 poles of garden in Old Mach.

The North Western Railway has acquired a supply of 44 gallons of water per minute from the Bibi Náni springs which has been carried by pipes to Panír and other stations. A sum of Rs. 2,592 was paid as compensation in settlement of all claims up to December 31, 1895, and from January 1, 1896, an agreement was made with the leading *zamíndárs* of Kirta, by which the Railway department agreed to pay Rs. 304 as annual rental. The Government share of revenue is deducted from the rent when it becomes due, and the balance is distributed among the Kuchiks and others in proportion to their shares in water.

The whole of the land acquired by the Railway between Spézand and Galangúr has not been surveyed in 1905, but a sum of Rs. 49,763 had been paid up to September of that year for 603¾ acres of land taken up between Nishpa East and Sheikh Wásil.

	Rupees.
First class irrigated land	300
Second class " "	200
First class dry-crop land	75
Second class do.	50
Third class do.	25
First class culturable waste land	25
Second class " " land	10

The rates per acre at which compensation was assessed are shown in the margin.

MISCELLANEOUS REVENUE.

Salt.

The salt used in the Bolán is either Punjab rock salt or Kachhi earth salt. The former pays duty at the mines and is chiefly imported for use by the Indian population in the bazars and stations on the railway. The indigenous

population use Kachhi or Kalát salt which is imported from Dádhar and Kachhi by shop-keepers or by the Bráhuis during their periodical migrations. At first, octroi at 4 annas a maund was levied on this salt, but in June 1895 the rate was raised to Re. 1-8 a maund and the proceeds have since been credited to Provincial revenues. Formal orders were issued by Government in January 1902 legalising the imposition of this duty in the Agency Territories. The amount realised from the duty during the six years ending with March 31, 1903, averaged Rs. 18-4 per annum. MISCELLANEOUS REVENUE.

Excise.

The excise contracts of the Bolán Pass and Nushki Railway District, which include opium, intoxicating drugs, country liquor and rum, are, as a rule, sold annually by the Political Agent, Quetta-Pishín, together with the contracts of his own District. The sales are subject to the Revenue Commissioner's sanction, and the amounts offered are subsequently distributed between the two Districts for purposes of account. The number of shops, at which excisable articles will be sold, is previously determined with the sanction of the Revenue Commissioner.

Nominally, the contracts for the wholesale and retail vend of intoxicating drugs are separate. The contractor for the Quetta-Pishín District manufactures country liquor locally, and imports other drugs from India and supplies the requirements of the Bolán from Quetta. No duty is levied on opium imported from the Punjab.

The import, possession and transfer of opium and poppy heads is governed by rules issued by the Local Government in 1898 under the Opium Act. The cultivation of poppy is prohibited. Smoking preparations may not be bought or sold, and must be made up by the smoker from opium in his lawful possession and then only to the extent of 1 tola at a time. The ordinary limits of private possession are 3 tolas of opium and its preparations

MISCELLANEOUS REVENUE.

(other than smoking preparations) and 1 seer of poppy heads. In 1902-3 there were five shops in the Bolán and the consumption of opium amounted to 7 seers, 7 chittacks and of poppy heads to 2 chittacks. The revenue realized was Rs. 730.

Intoxicating drugs.

Besides opium, the intoxicating or hemp drugs, which are controlled by regulation, are *gánja*, *charas*, and *bhang*. Prior to the issue of orders on the Report of the Hemp Drugs Commission (1893), the only restriction imposed was to farm out, by annual auction, the monopoly of the vend of these drugs at shops sanctioned by the Political Agent. The local cultivation of the hemp plant was stopped in 1896. In February 1902, revised rules were issued, under which the farmers are permitted to import the drugs from other British Provinces in bond, which are stored on importation in a bonded warehouse established at Sibi where small fees are levied and issues to licensed vendors are taxed. The ordinary rates of duty on drugs imported from British territory are Rs. 4 per seer on *gánja*, Rs. 80 per maund on *charas* and Rs. 4 per maund on *bhang*; imports from other territory, such as Kalát or Afghánistán, are taxed at double rates. The ordinary limit of private possession is 1 seer, in the case of *bhang*, and 5 tolas, in the case of *gánja* and *charas*. In 1902-3 there were five shops; the consumption included $1\frac{3}{5}$ chittacks of *gánja*, 26 seers $4\frac{3}{5}$ chittacks of *charas*, and 18 seers 12 chittacks of *bhang*; the revenue amounted to Rs. 780.

Country spirits and rum.

The manufacture and vend of country spirits are combined under a monopoly system. Not more than 1 seer of country liquor can be sold to any individual at a time, except with the permission in writing of an Excise officer authorised by the Political Agent. No minimum price is imposed nor has the liquor to be of any specified strength. In 1902-3, seventeen shops for the sale of country liquor were licensed and the revenue was Rs 1,930.

The Manager of the Railway refreshment room at Mach is given a license in form D* for the retail vend of spirituous and fermented liquors to bona fide railway travellers for a fee of Rs. 100 per annum.

MISCELLANEOUS REVENUE.
Spirituous and fermented liquors.

The consumption of opium, intoxicating drugs and liquors is entirely confined to the Indian population residing in the bazars and at railway stations. The indigenous population has neither the means nor the inclination to consume excisable articles.

Consumers consumption and aggregate revenue.

Table XIII, Vol. B., contains details of the consumption of, and revenue from, the principal articles. In 1902-3 the consumption per thousand of the entire population was: opium $3\frac{13}{16}$ seers, and *bhang* $9\frac{11}{16}$ seers; and per thousand of the population of the places, in which shops are ordinarily located, it was: opium $8\frac{13}{16}$ seers, and *bhang* $21\frac{7}{16}$ seers. A considerable decrease in the revenue has taken place since 1895-6, owing to the removal of the alien population employed on railway construction. In 1902-3 the total revenue had fallen to Rs. 3,540 from Rs. 19,410 realized in 1893-4. and Rs. 11,700 realized in 1895-6.

Stamps.

The Indian Stamp Act and the Court Fees Act and the rules made under each are in force in the District. A license for the sale of judicial and non-judicial stamps has been issued to the local petition-writer, who obtains his supply from the Treasury at Quetta or the Sub-Treasury at Sibi, and is paid commission at rates varying from $\frac{25}{32}$ to $6\frac{1}{4}$ per cent. on different kinds of stamps. The average annual receipts between 1897-8 and 1901-2 were Rs. 754 and in 1902-3 Rs. 740, the greater part being for judicial stamps. When the Mushkáf Bolán Railway was under construction, the receipts averaged Rs. 8,654 per annum in the three years between 1893-4 and 1895-6.

Income tax.

The Income Tax Act II of 1886 has not yet been

* Appendix V. p. 80 of the *Baluchistán Excise Manual*, 1902.

LOCAL FUNDS. applied to Baluchistán, but the tax is levied on the salaries of Government servants, by deduction from their pay bills; on salaries of officers paid from municipal and local funds and on rewards to Military officers for passing examinations in oriental languages. The receipts in 1902-3 were Rs. 62-7-2. This sum excludes Rs. 639-8 paid by the Kalát Agency in the same year on account of the income tax of the Political Agent, clerks, and others on duty in Kalát.

LOCAL FUNDS. Owing to the mobilization ordered in 1885 and the construction of the low level railway, a large number of men and animals were congregated in the Pass, and it was found necessary to make police and sanitary arrangements. To meet their cost, octroi was levied at Rindli, where a large bazar had grown up, and a conservancy cess was also imposed in the bazars at various halting places. The taxes thus imposed were formally sanctioned in November 1888, when the Government of India also authorised the formation of the Bolán bazar fund into an excluded local fund and directed the proceeds to be applied to municipal purposes, the conservancy of the several stations being the first charge. The receipts and expenditure between 1888-9 and 1891-2 averaged Rs. 7,316 and Rs. 7,190 respectively. During the next four years, 1892-3 to 1895-6, when the Mushkáf-Bolán Railway was under construction bazars sprang up at various places and the average annual receipts and expenditure were Rs. 30,046 and Rs. 25,789.

Normal conditions arose on the completion of the works, and from 1895-6 to 1898-9 the annual receipts averaged Rs. 9,736 and the expenditure Rs. 14,323. The excess in expenditure was met from the accumulated balances of previous years. In April 1899, it was decided to abolish the octroi everywhere and to substitute a shop tax at Mach, and at the same time certain adjustments of charges were made. The sources of income of the fund

were limited to the shop and conservancy cess and to the income from the Mach garden, against which were to be charged the cost of collection, of sanitary establishments, and the garden establishment. The fund is governed by rules issued by the Government of India in February 1900, as modified in April 1902. The tahsíldár is the administrator of the fund, the Political Agent the controller, and the Revenue Commissioner has the power of a Local Government. LOCAL FUNDS.

After the introduction of the change referred to above, the receipts averaged Rs. 707 and the expenditure Rs. 1,200 between 1899-1900 and 1903-4. The average and actual revenue and expenditure for the quinquennial period ending with March 31, 1902 and for 1902-3 under various heads are shewn in table XIV, Vol. B.

On the commencement of work on the Quetta-Nushki Railway in 1902-3, arrangements were made for the protection and sanitation of the line and of the bazars along it, and to meet the cost, octroi was imposed, and excise contracts sold. From 1902 to 1904 separate accounts were kept, but from April 1, 1904, they were amalgamated with the Bolán bazar fund. The revenue and expenditure on the Nushki railway has been as shown in the margin.

	Revenue	Expenditure.
	Rs,	Rs.
1902-3	2,500	644
1903-4	11,396	6,119
1904-5	12,928	10,248

The figures are of course exceptional and will be greatly reduced on the resumption of normal conditions.

PUBLIC WORKS.

Important civil works in the District are carried out by the officers of the Military Works Service. The Commanding Royal Engineer of the Quetta Sub-District exercises general control. Works in the District are under the Garrison Engineer, Bolán, the upper subordinate in charge being the Sub-Divisional Officer, Defences.

Important works.

Reference will be found in the section on **Means of Communication** to the Mushkáf-Bolán Railway and

the Bolán military road. Excluding the military buildings and the military works inspection bungalows, which exist at various stages on the military road, and the Railway dispensary at Mach, the civil buildings include the Political Agent's house, the tahsíl, quarters for the tahsíl establishment, police and levy *thánas* at Mach, levy posts at the various stages on the military road, including Spézand, Drinjan and Drájbét, and the rest houses, a detailed list of which is contained in table VI, Vol. B. Buildings have also been provided by the Railway for the police and levies posted at the various stations.

LEVIES, POLICE AND JAILS.

Levies.

The origin of the levy service in the Bolán is intimately connected with the steps taken by Sir Robert Sandeman for the opening of the Pass in 1876. Up to that time the Pass had been closed chiefly owing to the gain thereby to the Kalát exchequer, caravans being forced to pass through the town of Kalát on their way to Shikárpur via the Múla Pass or to Karáchi via Khuzdár, in which case the Khán was able to collect all dues on the traffic, whereas, when it took the Bolán route, he was obliged to share the proceeds with the sardárs and tribes in the neighbourhood of the Pass. From enquiries made it was found that the duties payable by caravans were of two kinds, viz. *sung* or custom dues, which were the right of the Khán after one-seventh had been paid to the Sarawán chiefs, and *badrakka* or escort fees, about which disputes were rife owing to the Khán's having given them to any tribe temporarily in his favour.

Original arrangement with the Khán and chiefs.

In 1876, the Khán, agreed that the escort fees should go to those escorting the caravans frequenting the Pass, Sardár Alladina, Kúrd, being responsible for their distribution under the general supervision of the Raisáni chief. The latter was to be in sole charge of the Pass, and was to keep sixty men of the Marri and Kúrd tribes at Kirta and forty men of the Méngal and Dumar tribes at Dasht in the hot weather and at Abigum in the cold. The total

cost was Rs. 18,000 per annum.

LEVIES, POLICE AND JAILS.

Arrangements under the treaty of 1876.

The arrangements thus begun were made permanent by the provisions of article 10 of the Treaty of 1876, the British Government agreeing to undertake to contribute Rs. 20,500 per annum towards the establishment of posts and the development of traffic along the trade route in the Khán's territories, believing that it would be wiser thus to interest the tribes in the protection of the Pass than that the Khán or the British Government should hold it by force. Payments were found from the sum allotted, for Sardár Mulla Muhammad, Raisáni, and Sardár Abdul Wáhid Khán, Durráni, and for an establishment, excluding sardárs, of the strength shown in the margin. The men not only held the Bolán but Quetta and the Ghazaband Pass.

Daffadárs ...	... 2
Jemadárs ...	... 11
Sowars ...	... 6
Footmen ...	...112
Munshi ...	... 1

Telegraph service.

The telegraph was extended through the Bolán in 1878, and levies consisting of 2 jamadárs, 1 daffadár, 23 sowars and 10 footmen were sanctioned at a total monthly cost of Rs. 625.

During 1878 the question of peace or war with Afghánistán was trembling in the balance, and a further sum of Rs. 1,700 per mensem was sanctioned for levies, to which a sum of Rs. 100 per mensem was added later for a Méngal levy post at Mach. These sums were granted to ensure the safety of convoys and men traversing the Pass. The total cost of the levies in 1878 was Rs. 4,133-5-4 per mensem. The arrangement worked satisfactorily and stood the strain which was occasioned by the reverse at Maiwand.

Postal service.

In 1881, a postal service was sanctioned. It comprised the units noted in the margin, and cost Rs. 3,435 per mensem. It has since been entirely abolished and, therefore, need not

Inspector ...	... 1
Jemadárs ...	... 2
Daffadárs ...	... 7
Sowars ...	... 134

LEVIES, POLICE AND JAILS.

Abolition of *sung* and *badrakka* and reorganisation of levies

be noticed in further detail here.

On the Bolán passing under British jurisdiction in 1883, the distribution of the amount to be paid to the chiefs, out of the amount sanctioned for the purpose, was considered by the committee which had been convened in connection with the question of the entire re-organisation of the levies in the Agency, which was then under discussion. The telegraph levies were abolished as a separate service. The services sanctioned included a monthly payment of Rs. 1,083-5-4 or Rs. 13,000 per annum, on account of transit dues and escort fees (*sung* and *badrakka*) to be distributed as under:—

(1) To be paid to Yár Muhammad, Kúrd, and distributed by him	Rs.	500	0	0
(2) Sahtakzais	„	250	0	0
(3) Sardár Assad Khán, Raisáni	„	183	5	4
(4) Rasúl Bakhsh, cousin of Sardár Assad Khán, and 2 sowars, under orders of the Political Agent, Kalát	„	150	0	0
Total	Rs.	1,083	5	4

In addition to these payments, Yár Muhammad the Kúrd chief, was given Rs. 100 from the levy service, in consideration of his responsibility, under Sardár Assad Khán, for maintaining order throughout the Pass from Sariáb to Pír Chauki. He was required to furnish in return for it 1 jemadár on Rs. 50 and 2 sowars at Rs. 25 each to be at the disposal of the Political Agent. Two Sahtakzai headmen were also paid Rs. 80 per mensem, in return for which they were required to furnish 1 sowar each with the Political Agent, and were held responsible for the safety of the Pass from Sariáb to Mach under Yár Muhammad, Kúrd. The other services consisted of an allowance of Rs. 500 per mensem, in the nature of a political pension, to Mullá Muhammad Raisáni, who had great influence throughout the Pass, and of monthly

Méngals	...Rs. 205-0-0
Mazaráni and Aliáni Marris.	" 185-0-0
Kuchiks ...	" 90-0-0
Munshi... ...	" 26-0 0
Police at Mach and Rindli ...	" 253-13-4

payments to the tribes noted in the margin. The number of posts held including Rindli and Quetta was twelve.

Levies, Police and Jails.

At the same time the committee of 1883 laid down certain general principles for future guidance. They drew a sharp line between active and pensioned service, and decided that all persons drawing pay, whether chiefs or others, who were not pensioners, must render an equivalent in service. Levies, they also considered, should be local, and tribal responsibility enforced. The chiefs nominating and the men nominated should, as a rule, belong to the immediate neighbourhood of the post, in which they were employed.

These principles are still the backbone of the levy system. Under it, service is given to chiefs or headmen in localities, where they have influence, and they can nominate their men, subject to confirmation by the Political Agent or an officer in charge of a sub-division. A nominee of a chief or headman may be rejected on the score of physical unfitness, bad character or other sufficient cause. The men bring their weapons of some sort, and the sowars their own mount, the latter being subject to approval. When it is remembered that levies execute the duties which are ordinarily allotted to police in India and maintain peace and order in the District, the importance of judicious selections to fill vacancies in the District levy service will be obvious.

Shahwáni Sardár's claim to a share in the *sung* negatived.

In 1888 the Shahwáni chief put forward a claim to a share in the *sung* of the Bolán. The case was fully reported upon by Captain H. M. Temple, and Sir Robert Sandeman found that the chief's right, if any, was too ancient to be admitted, and the claim was, therefore, negatived.

Changes made since 1890.

In April 1890, the levy and police services were

LEVIES, POLICE AND JAILS.

provincialised and, since then, changes have been made in the Bolán levies from time to time. A revision which took place in 1892, resulted in the abolition of the Marri service which did no work, and in the reduction of the Méngal and Kuchik services to Rs. 40 each. On the death of Sardár Sir Assad Khán, Raisáni, in 1894 his share of *sung* (Rs. 183-5-4) was continued to his son. Reductions, chiefly in the rate of pay, amounting in the aggregate to Rs. 500 per mensem were made in July 1895.

In 1896, on the death of Háji Mullá Muhammad Khán, Raisáni, his allowance of Rs. 500 was distributed to several leading men among the Sarawáns, including the Lángav and Sarparra headmen. Temporary alterations were made in 1899, when the Kúrd chief fled to Afghánistán, and on the restoration of the Kúrd chief's service in 1900, advantage was taken of the opportunity to confer Rs. 100 per mensem out of the sum formerly paid to Mullá Muhammad, Raisáni, on the latter's grandson, Ghaus Bakhsh, the Raisáni chief.

In February 1903, the Political Agent, Kalát, proposed a further revision of the levies in order to exercise more effective control over the Sarawán tribes, the main features of the proposal being to have a strong post at head quarters, to enable the Political Agent to send out men when necessary, and to post six footmen at railway gang huts. Meanwhile the Quetta-Kalát postal service and certain other services, though working in Sarawán, had been included in the Bolán levy service for purposes of administration and in May 1903, their distribution and cost were as follows :—

Quetta to Kalát postal service*	Rs.	353	5	4
Mastung to Kardgáp postal service* ...	„	150	0	0
Quetta-Kalát telegraph service*	„	200	0	0
Miscellaneous levies*	„	997	0	0
Bolán posts	„	1,093	0	0

NOTE.—The items marked thus* are not ordinarily attached to the Bolán Pass.

LEVIES, POLICE AND JAILS.

Bolán railway posts	Rs.	432	0	0
Bolán head quarters levies	„	801	0	0
Tribal service	„	764	0	0
Badrakka payments	„	750	0	0
Sung	„	323	5	4
Office establishment	„	53	0	0
Total	Rs.	5,916	10	8

The head quarters levies consist of 1 jemadár, 2 daffadárs, 29 sowars including 6 camel sowars, 1 munshi and 4 footmen.

Distribution of *badrakka* and *sung*.

The distribution of the *sung* and *badrakka* in 1905 was as follows :—

BADRAKKA—

Kúrds	Rs.	500	0	0
Sahtakzais	„	250	0	0
Total	Rs.	750	0	0

SUNG—

Sardár Sir Ghaus Bakhsh, Raisáni ...	Rs.	183	5	4
Mír Karam Khán brother of Khán Bahádur Mír Rasúl Bakhsh, Raisáni, Thánadár at Rindli	„	100	0	0
Two Sowars with do. ...	„	40	0	0
Total	Rs.	323	5	4

The amount allotted to the Kúrds is distributed in twelve shares representing Rs. 41-10-8 each, of which the chief takes two shares, while one share each is received by the men noted in the margin.

Afzal Khán, Yúsaf Khán, Dost Muhammad, K. B. Daurán Khán, Khoidád Khán, Amír Khán, Mír Hasan Khán, Karím Bakhsh, Isa Khán and Rahím Khán.

The Sahtákzais divide their Rs. 250 as under:—

1. Rahmatzai	...Rs. 62-8-0	5. Totézai ...	... Rs. 9-8-0
2. Badozai	... „ 37-8-0	6. Headman's family .	„ 30-0-0
3. Khákézai	... „ 37-8-0	7. „ relatives	„ 30-0-0
4. Ahmadzai	... „ 37-8-0	8. „ hamsáyáhs	„ 5-8-0

The Sardár's family sub-divide their Rs. 30 in equal shares among six co-sharers.

Strength of levies in March 1904.

The levies actually employed in the Pass on March 31, 1904, numbered 133 including 23 headmen, 39 sowars,

LEVIES, POLICE AND JAILS.

jemadárs and other superior officers, 66 footmen and havildars, 4 clerks and 1 sweeper. Of these, 38 men were employed at 18 railway stations and gang huts, 71 men at 11 posts on the military road, while 24 men are paid for tribal responsibility only. Details of the distribution are shewn in table XV, Vol. B.

Duties of levies.

Writing in 1890, Captain Temple then Political Agent, Kalát, defined the duties of the Bolán levies in the following words. "It should be borne in mind that the sowars are used for service not merely in the Pass but throughout Sarawán. They carry letters to sardárs in Kachhi, to Jhal, Shorán and elsewhere. In Khurásán they are used for carrying instructions to sardárs in Mastung, Mungachar and elsewhere. The levies in the Pass are used to protect passengers and others traversing the Bolán, to trace out criminals, restore stolen property, give compensation for goods when stolen and not discovered. Beyond the Bolán, they afford assistance in carrying out the decrees in *jirga* cases, they serve summonses and capture criminals who may have fled into the territories of the sardárs."

Rules, defining the duties of levies at the stations in the Bolán, were issued by the Political Agent in 1904, and orders were issued in the same year for the more regular inspection of levies by the local officers.

Responsibility of the levies for the protection of telegraph wire.

Telegraph wires were cut on several occasions in 1897-8, and in 1899 it was decided to make the Kúrd *sardárkhél* responsible for the wire from the Surkh Bájo hill to Darwáza, and also in other portions of their country through which the line passed, damages being made good from the Kúrd chief's pay and from the Kúrds' share of the escort fees *(badrakka)* in equal proportions. The Sahtakzai *sardárkhél* were similarly held responsible for the line from Sariáb to Mushkáf. The Quetta *sháhi jirga* also ruled in August 1899 that those who enjoyed the *badrakka* were responsible for offences committed on the

military road, railway stations and bazars in the Bolán, if the culprits were proved to be Baloch or Bráhuis, but not if they were men from India.

LEVIES, POLICE AND JAILS.

Police.

Police were first stationed in the Pass in 1882, when a small body consisting of 2 deputy inspectors, 4 sowars and 2 *munshis*, was recruited for Pír Chauki and Mach at a monthly cost of Rs. 222 for registering the traffic through the Bolán. In 1885-6 a large body of police under an Assistant District Superintendent of Police was employed, but the force was considerably reduced in 1887, when the charge of the Pass was transferred to the Quetta-Pishín District. Since this time the police in the Pass have formed part of the Quetta-Pishín District police. Most of the work ordinarily allotted to police in India is done by the levies in the Bolán, the duties of the police being confined chiefly to guarding stations and maintaining the peace there and at Mach.

On March 31, 1904, the total number of police employed in the Pass proper was 41, comprising 2 deputy inspectors, 7 sergeants and 32 constables. Of these, 11 men were employed in the Mach *thána*, and 30 men at 8 stations on the railway line. Details of the distribution are given in table XVI, Vol. B.

With effect from November 1, 1905, the following levies and police have been sanctioned for the Spézand-Kardgáp portion of the Quetta-Nushki Railway, the Deputy Inspector stationed at Sheikh Wásil being also in charge of the police force at stations in the Chágai District:—

	POLICE.			LEVIES.			
	Deputy Inspector.	Sergeants.	Constables	Jemadárs.	Havildárs.	Footmen.	Muharrir.
Mastung Road ...	...	...	2	1	1	4	1
Káhnak ...	...	...	2	...	...	2	...
Sheikh Wásil ...	1	3	12	...	...	2	...
Kardgáp ...	...	1	2	...	1	4	...
Total ...	1	4	18	1	2	12	1

LEVIES, POLICE AND JAILS.

Cognizable crime.

Details of cognizable crime for the quinquennial period ending with December 31, 1902, are given in table XVII, Vol. B. The average number of cases reported was 34 and the convictions obtained were 14. Cases of murder seldom occur. The Political Agent, writing about the figures for three years, 1901 to 1903, remarks:—

"There is comparatively little crime, and the average of the last three years, which is 27, may be taken as representing the fair average of cases which may be expected to occur under present conditions. The classification of cases shows that out of the annual average of 27, 10 were serious offences against person and property, and 9 minor offences but there has been no really serious case for some years, and there are no classes of habitual offenders. The percentage of convictions is nearly 57 per cent."

Cattle pounds.

There are two cattle pounds (1905), one at Mach, which is managed by the police and the other at Rindli, which is under the control of the levies. At harvest time a temporary cattle pound is opened at Kirta. Fees varying from 1 anna for each goat or sheep per diem to 8 annas for a camel are levied, and the receipts are credited to the Provincial Revenues.

Jails.

Prisoners sentenced by courts in the Bolán Pass are confined in the District Jail at Quetta.

EDUCATION.

No public school at present exists (1905). A primary school was opened at Rindli in February 1889, in which the number of pupils was 20; it did not prove a success and was closed in the following year. In August 1893, a similar school was opened at Mach, but was closed in 1894 for want of support. At Kirta, 13 girls and 11 boys receive religious instruction from the village *mullá* (1905). Some of the children, after learning the Korán, go on to elementary Persian and caligraphy.

MEDICAL.

The only dispensary is at Mach, and is maintained by the North Western Railway for its own employés, but medical aid is also given to the civil population. The establishment consists of an Assistant Surgeon, a compounder and three menials. The building has accommodation for 13 in-patients. The total number of patients that attended the dispensary in 1902 was 5,323, and the average daily attendance of in-patients was 1·85. A temporary dispensary existed at Sheikh Wásil in 1905 for the Nushki Railway works; it was in charge of an Assistant Surgeon.

Principal diseases and their causes.

The prevailing diseases are malarial fever; bowel complaints, dysentery and dyspepsia due partly to injudicious and unwholesome food and partly to exposure and chill; catarrh and bronchitis, caused by exposure and insufficient clothing; ulcers; skin affections; scabies; and enlargement of the spleen.

Epidemics.

Several severe outbreaks of cholera have occurred in the Bolán Pass, either among the troops employed on the military road or marching along the road, or among the workmen employed on the railway or road, or among the Bráhuis using the road on their migrations.

About 1852 local accounts assert that cholera broke out in epidemic form causing heavy mortality. Cholera appeared in 1876, during Sir Robert Sandeman's second mission, and extended to the escort. Another severe outbreak occurred early in May 1885 among the large number of followers congregated at Rindli and spread rapidly up the Pass to Quetta and Pishín; it did not cease till August. The mortality at Rindli was heavy. In 1891 cholera was widespread in Baluchistán. It commenced at the end of July with a few cases at Sibi and spread along the railway line and also as far as Zhob, and towards the end of the year the disease appeared among the workmen collected in the lower part of the

MEDICAL. Bolán to reconstruct the railway. There were a good many deaths, and 35 persons are said to have died at Kirta. The disease also occurred in a mild form in June 1903 on the Nushki Railway line, but its duration was short.

Plague precautions. A plague segregation camp is maintained at Hirok during the summer, and is moved to Sibi during the winter.

Vaccination and inoculation. Vaccination has not been introduced, and the people appear to have some misgivings about its efficacy. Inoculation, locally called *tukka,* is practised by a class known as Shahé, who claim to be the descendents of Sheikh Mánda of Quetta, and who live in Rindli.

When small-pox appears in the Pass or neighbourhood their services are requisitioned. If the Shahé cannot come immediately, he sends charmed salt with which other salt is mixed and sprinkled round the village or encampment, while a small quantity is administered to such persons as have not caught the infection. This method is believed to be effective in preventing small-pox until the Shahé can attend. No fees are fixed, but each person inoculated makes an offering according to his means.

Method of inoculation. The method usually adopted is for a small incision to be made with a razor on the wrist of the right hand in which powdered small-pox pustules are placed; some cotton is placed over the wound, and a cloth bandage is then tied over the whole. The patient is isolated, and is only visited by persons who have themselves had small-pox. The eruptions accompanied by fever generally occur within three days of the operation, and at this time the patient is fed on chicken soup, dates and other heat producing substances. If no eruption or fever occurs within three days, the operation is repeated a second, and sometimes a third or fourth time, until it proves successful. When suffering from the eruption, a patient may not be visited by women or other persons, who for any reason may be considered "unclean" according to the custom

of the country.

MEDICAL. Indigenous remedies.

The people of the country, who live at a distance from the dispensary, generally resort to the indigenous methods of treatment, and in serious cases of illness, such as consumption, the services of native *hakíms* from Dádhar are requisitioned.

In cases of cholera the only remedy is a draught prepared from *hézhwarg* (*Razhya stricta*), and onion juice is also administered to allay thirst. Segregation of cholera patients is not resorted to, but the people avoid visiting any village in which the epidemic may be prevalent. In cases of small-pox, the patient is segregated and is attended only by friends and relations, who have had small-pox or been inoculated. Strangers, especially those whose hair is wet, who are wearing new clothes, or who are "unclean" according to local custom, are not allowed to visit the sufferer as the smell of their bodies and clothes is believed to cause irritation.

Bleeding from the vein called *sarosh khad* is adopted for pneumonia (*gwar* or *sark*) by the Baloch, and a cake made of *mung* or wheat flour, mixed with dry ginger, madder, *ajwain* and mustard oil, is tied on the patient's skull for twelve hours. A decoction made of 2 tolas of *charmahing* and two tolas of *jágri* boiled in water is also given. If these remedies fail, the top of the patient's head is shaved and branded with a wick made of some red cloth, in which some inflammable substance has been wrapped. The Bráhuis administer a decoction made of poppy heads in such cases and wrap the patient in a fresh goat skin. In cases of measles (*mubárki*) a paste made of *gandarém* and mustard oil is rubbed on the patient's body. In malarial fever the drug administered is *bangéra* (*Gentiana olivieri*), about 2 tolas of which are steeped in water for twelve hours.

For jaundice (*zardoi*), a drench made of about 4 tolas of tamarisk leaves steeped in half a seer of water is given

MEDICAL. for four to seven days. The seeds of *kisán kúr* (*Peganum harmala*) powdered and dissolved in water are applied to sore eyes (*cham dor*). Branding is the usual remedy for enlargement of the spleen (*némpas*), and *panér band* seed (*Withania coagulans*) for dyspepsia.

Village sanitation and water supply. Sweepers are employed at Mach and Rindli, at rest houses along the military road, and at railway stations. In 1897 and 1898 temporary sweepers were employed for about five months in each year to keep the road clean of the carcases of animals dying during the periodical migration of the Bráhuis to and from Kachhi, and the cost was debited to the Bolán bazar fund. In 1899 it was decided that these sweepers should, in future, be employed and paid for by the Military Works Service. In villages, there are no arrangements for sanitation, but the litter and filth, which are allowed to remain in the houses and lanes, are removed for manuring the fields.

The supply of drinking water is drawn from the Bolán river or from springs; that for stations on the railway line has, in some cases, been piped from long distances. For Kolpur and Hirok, water has been piped from springs near Dozán; for Mach and Abigum from the Bolán river near Mach; for Píshi from a spring in the Píshi hill torrent, and for Panír, Oospur and Mushkáf from springs near the Bíbi Náni levy post. The bazar at New Mach is supplied with drinking water from the North Western Railway system, the charge for the maintenance of which, up to an annual maximum sum of Rs. 120, is paid from the Provincial Revenues.

Working of the pice packet system of sale of quinine. The pice packet system of selling quinine through the agency of the post office was introduced in 1895. During the first year, 624 packets were sold, the largest sale being at the Rindli post office (241 packets). The sales rose to 805 in 1901-2, and 1,086 packets in 1902-3, but fell to 714 in 1903-4.

SURVEYS. The Survey Department of the Government of India has prepared and published maps of the Bolán Pass on the ¼ inch and ⅛ scales.

CHAPTER IV.—MINIATURE GAZETTEER.

Kolpur is a station on the Mushkáf Bolán Railway situated in 29° 54′ N. and 67° 8′ E., at an elevation of 5,874 feet. It is 62 miles from Sibi and 25 miles from Quetta by rail. The population in 1901 was 135: males 112, females 23. Drinking water is raised by an engine from springs near Dozán. There are half a dozen shops, a small levy post (3 men), a military camping ground and a railway rest house. To obtain water at the military camping ground for large parties, previous notice has to be given to the Garrison Engineer in charge of the Bolán Pass. The station is at present (1905) used by the people of Johán, Mungachar, Mastung, Isplinji, Marav and Dasht in Sarawán; but, as soon as the Nushki Railway has been opened, the traffic from the Mastung valley will be diverted to that line. The exports by rail in 1904 consisted of about 17,222 maunds and comprised tobacco, wheat, potatoes, onions, dried mulberries, *sinjid*, apricots, *panérband* fruit (*Withania coagulans*) and cumin seed; the imports amounted to about 50,402 maunds and consisted of *juári*, rice, sugar, *jágri*, piece goods, oil and sundries.

Mach, the head quarters of the Bolán Pass District proper, derives its name from a solitary date tree, which formerly existed there and was noticed by Masson in 1827. It lies between 29° 52′ N. and 67° 20′ E., at an elevation of 3,246 feet above the sea level; and is 41 miles from Quetta and 46 miles from Sibi by rail. It is also connected with these places by a cart road, distance 41½ and 62½ miles respectively. It is divided into two parts, Old and New Mach. Old Mach contains the tahsíl,

MINIATURE GAZETTEER.

police and levy posts, Political bungalow, and a Government garden, all of which lie to the east of the bed of the Bolán; on the west of the river are some military buildings, a rest house, and a Military Works inspection bungalow. New Mach is about 2 miles from Old Mach on the eastern bank of the Bolán river, and here are the railway station and telegraph office, post office, railway dispensary, railway rest house and other buildings, and also a small bazar. The population in 1901 was 509, of whom 366 were males and 143 females; of the total, 249 were railway employés and their families. Small fees are levied in the bazar and a *chaukídár* and a sweeper are employed. Drinking water is obtained at Old Mach from springs; for New Mach water has been piped from the Bolán river. A supply of water has been provided for the bazar for which the Civil department pays the Railway all charges on account of maintenance subject to a maximum of Rs. 120 per annum. The supply may be cut off should the Railway authorities find it advisable to withdraw the concession. Both exports from and imports to Mach station are insignificant, but the latter considerably exceed the former. The exports and imports for 1904 are given below :—

EXPORTS.		IMPORTS.	
ARTICLE.	MAUNDS.	ARTICLE.	MAUNDS.
Cumin seed	10	Juári	5,994
Wool	20	Ata	3,783
Wheat	609	Wheat	55
Juári	60	Ghí	100
Panérband fruit. ...	158	Gur	197
Crude potash	60	Rice	110
		Sugar	186
		Oil	34
		Bhúsa	609
		Salt	14

Most of the exports come from the Khajúri village, about 5 miles away in the Sarawán country.

Mushkaf Railway station lies in 29° 34′ N. and 67° 40′ E., at an elevation of about 460 feet above the sea level, and is 10 miles from Sibi, 36 miles from Mach and 77 miles from Quetta by rail. It has a small levy post (3 men) and a room for travellers at the station. Drinking water has been piped from the springs near Bíbi Náni from which water is supplied to a garden maintained by the Railway department. The population in 1901 was 50: males 45 and females 5. The station is used by villages in Kachhi so far afield as Shorán and Sanni, but most of the traffic comes from Mushkáf (4 miles), Dádhar (8 miles), Rindli (9 miles), and other places in the Dádhar *niábat*. Camels are chiefly used for transport, but country bullock carts can be driven between the station and Dádhar, the rate of hire of the latter being 1 anna a maund. The exports and imports from Mushkáf station in 1904, are given below:—

MINIATURE GAZETTEER.

EXPORTS.		IMPORTS.	
ARTICLE.	MAUNDS.	ARTICLE.	MAUNDS.
Flour	625	Wheat	571
Wheat	19,886	Kerosine...	216
Juári	8,134	Sugar	685
Country salt	139	Dry fruit	575
Bhúsa	22,975	Cotton piece goods ...	732
Wool	161	Rice	1,208
		Pulses	1,254
		Ghí	261
		Jágri	869
		Tobacco	1,019
		Juári	189

Rindli, or **New Rindli** as it is called to distinguish it from the Rindli village 1½ miles away, lies in 29° 29′ N. and 67° 38′ E., and is 17½ miles from Sibi by road, 86¼ miles from Quetta, 45 miles from Mach, about 2 miles from Dádhar and 9 miles from the Mushkáf railway station. It is connected with Sibi by a branch line, which takes off at Nári Bank station, but the line is not open for traffic at present (1905). Rindli was much used

MINIATURE GAZETTEER. during the second Afghán war, 1878 to 1882, and also in 1885-6 at the time of the Panjdeh incident, and might again become of importance in case of mobilization, owing to its position at the point of exit of the Bolán road from the hills. At present (1905) the place contains a levy post (16 men), a post office, and a couple of shops. There are various military buildings, a rest house, and a Military Works inspection bungalow. Government owns about 31 acres of irrigable land and 10 *angusht* of water of the Bolán river, which are leased to *zamíndárs*, who pay half of the produce as rent and revenue. Government also owns about 36 acres of uncultivated land occupied by buildings etc. A fine fruit garden, which was planted in 1888-9 by the Political Agent, Kalát, was sold to Saiad Bahár Sháh and others in 1898. The neighbouring village of Dádhar is the head quarter station of the *niábat* of the same name belonging to the Kalát State.

BOLAN.

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Appendices.

BOLAN.

APPENDIX I.

Alphabetical list of common trees and plants.

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Abdrika ...		A grass ...	Kirta ...	Fodder for cattle sheep, etc.
Adang ...		A wild tree...	Khurásán hills.	Fuel.
Alúcha ...	Prunus communis.	Plum, yellow	Mach garden.	
Am	Mangifera indica, Linn.	Mango ...	Rindli garden.	
Amrút ...	Psidium Guyava.	Guava ...	Mach and Rindli.	
Angúr ...	Vitis vinifera ...	Grape ...	do. ...	
Anjír ...	Ficus carica ...	Fig	do. ...	
Apurs ...	Juniperus macropoda.	Juniper ...	Khurásán hills.	Timber and fuel.
Archin ...		Wild tree ...	do. ...	Fuel.
Bádám ...	Prunus amygdalus (Amygdalus communis).	Almond ...	Mach garden.	
Bakáin ...	Melia Azedarach, Linn.	The Persian Lilac; Bead tree.	do. ...	
Bangéra ...	Gentiana olivieri..		Khurásán hills.	A cure for fever. It induces perspiration.
Bar	Ficus bengalensis	The banyan tree.	Rindli.	
Bihi	Cydonia vulgaris.	Quince ...	Mach garden.	Flowers form a cooling drink for children.
Boé mádrán ..	Achillea Santolina, Stocks.		Above Mach.	Fodder for sheep and goats.

APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Bundi (Br.)...	Haloxylon Griffithii, Bunge.	Barilla plant.	Everywhere.	Used as fuel, also for curing skins.
Chábar ...	Poa bulbosa, Linn.	A grass ...	Do.	Fodder for sheep, goats, horses and cattle.
Chakotra ...	Citrus decumana, Linn.	The shaddock. Paradise apple.	Mach garden.	
Chamma máor.	Salvia Aegyptiaca.	A plant ...	Common everywhere	Seed used as medicine for eye diseases.
Charmahing..		A wild plant.	Khurásán.	Medicine for chest diseases.
Chitark ...	Caragana ulicina, Stocks.			
Dháru or anár	Punica granatum.	Pomegranate	Mach and Rindli.	
Dandán Shákh.		Wild plant...	In bed of the Bolán.	Seed used as medicine for toothache.
Dhatúra ...	Datura fastuosa, Linn.	The black Datura.	Common...	
Díl	Andropogon ...	A grass ..	Bolán river	Fodder for horses.
Drab ...	Eragrostis cynosuroides.	do. ...	Everywhere.	Fodder for cattle, sheep, goats, etc.

APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Gandarém ...		A wild plant.	Common everywhere	A drug used for coughs, both in men and camels.
Gandákhu (Kísánkur, Br.)	Peganum harmala.	Garden rue...	Everywhere.	Seed used as drug.
Gandíl ...	Eleusine flagellifera.	A grass ...	do. ...	Fodder for cattle, sheep, goats, etc.
Gaz (Kirri, Br.)	Tamarix orientalis.	Tamarisk ...	In the bed of Bolán river.	Used as fuel.
Gét	Salix	Willow ...	Mach and places below.	Timber and fuel.
Gidri ...		A wild plant.	Bolán river	
Goíndi ...	Cordia Rothii ...		Rindli garden.	A fruit.
Gorka (Haddén, Br.)	Stipa capillata...	A hill grass..	Hills ...	Fodder for cattle, horse, etc.
Gul-i-guláb ...	Rosa damascena.	Persian rose.	Mach and Rindli.	
Gunch (Kharín girri, Br.)	Citrullus colocynthis.	The colocynth.	Common everywhere	Drug for colic in animals.
Gwan ...	Pistacia cabulica.	Pistachio nut tree.	In Khurásán.	Fruit much prized by the people. Excellent fuel.
Has (Khat, Br.)	Olea europea ...	Olive ...	All hills.	Timber and fuel

BOLAN.

APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Hézhwarg ...	Rhazya stricta ...	A wild bush.	Bolán river	A drug for impurities of blood.
Hum ...	Periploca aphylla	A wild plant.	Everywhere.	Fodder for camels.
Husén butav.			Khurásán hills.	Fodder for camels.
Ispédár ...	Populus alba ...	The alb or white poplar	Mach Garden.	Timber.
Izghand ...	Thymus		do. ...	Drug for fever. Fodder for goats.
Jag (Tahli, Br.)	Dalbergia sissoo..		Rindli.	
Jaur... ...	Nerium odorum...	Poisonous bush.	Bolán river	
Jir	Artemisia ...	A wild bush.	Above Mach.	Fodder for sheep, goats and donkeys; also used as fuel.
Kachnár ...	Bauhinia acuminata.		Rindli.	
Kahír (Mar. Br.)	Prosopis spicigera.		Bolán river hills.	Fodder for camels and fuel.
Kaj		Grass ...	Everywhere.	Fodder for sheep, goats and cattle, etc.
Kalér ...	Capparis aphylla.		Everywhere below Hirok.	Fodder for camels, sheep and goats. Fruit eaten by people.

BOLAN.

APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Kalpora ...	Teucrium Stocksianum, Boiss.		Khurásán hills.	Used as fever cure.
Kán		Grass ...	Rindli ...	Fodder for camels, sheep, goats, etc.
Kándár ...		A grass ...	All hills...	do.
Karagh ...	Calotropis gigantea.		Bolán river	Fodder for goats and used as fuel.
Kartusa ...		A wild bush.	Láléji plain	Fodder for camels, sheep and goats.
Kárwánkush.	Pterophyrum olivieri.		Above Mach.	Fuel.
Kásh (Káshum, Br)	Saccharum ciliare	Grass ...	Bolán river	Fodder for camels, sheep and cattle, etc.
Kasír. (Kasúr, Br.)	Pistacia mutica.		All hills...	Fruit eaten, used as fuel.
Kéla ...	Musa sapientum, Linn.	Banana or plantain.	Mach and Rindli.	
Kik		Grass ...	Láléji and Drabbi.	Fodder for cattle, sheep, goats, etc.
Kikar (Babar, Br.)	Acacia arabica...		Rindli ...	
Kimb ...			Mach and Rindli garden.	

APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Kul	Typha angustifolia.		Bolán river	Roots and flowers eaten by people.
Kúnar or bér	Zizyphus jujuba..	Indian jujube.	Below Mach.	Fruit eaten.
Lému ...	Limonum ...	Lemon ...	Mach garden.	
Lésuro ...	Cordia myxa ...		Rindli and Drabbi.	
Mach ...		Date palm...	Kirta ...	Fruit eaten.
Maghumbar...		A wild bush.	Khurásán hills.	Fuel.
Málta ...	Citrus nobilis ...	Maltese orange.	Mach and Rindli.	
Mármút ...	Boucerosia aucheriana.		Everywhere.	Roots used as drug for fever.
Matétav ...	Salvia or Nepeta.	A wild plant.	Khurásán hills.	Fodder for goats, drug for fever.
Mazárdumb...		A grass ...	Kirta ...	Fodder for camels.
Mékh totia ...		A small bush	Hills ...	Roots used as drug for eyes.
Mungli ...	Orthonnopsis intermedia, Boiss.		Above Mach.	Fodder for goats. Infusion of the leaves used for headache. Twigs used as fuel.

APPENDIX I—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Nadagh (Hawé, Br.)	Cymbopogon iwarancusa.	Grass ...	Hills ...	Fodder for cattle, sheep, goats, etc.
Nal	Phragmites communis.	Reed ...	Bolán river.	
Nárinj ...	Citrus aurantium	Orange ...		
Narmuri ...		Grass ...	Kirta ...	Fodder for cattle.
Naromb ...	Ephedra pachyclada.	Wild bush...	Hills ...	The twigs are used for tanning *mashk* leather and also as fuel; ashes mixed with tobacco for chewing.
Náshpáti ...	Pyrus communis, Linn.	Pear ...	Mach garden.	
Ním ...	Melia Azadirachta		Rindli ...	
Panérband ...	Withania coagulans.		Bolán river.	Seed used for making cheese.
Parpuk ...		Wild bush...	All hills ...	Drug for fever.
Párwán (Fálsa, Br.)			Rindli ...	
Pípal ...	Ficus religiosa ...	Indian fig tree.	Mushkáf and Rindli.	
Pípal ...	Daphne oleoides, Schreb.		Above Mach.	A poisonous plant.

APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Pír. (Kabr., Br.)	Salvadora oleoides	Wild bush..	Everywhere.	Fodder for cattle, sheep and goats, etc.
Písh... ...	Nannorhops Ritchieana.	Dwarf palm..	Píshi hill torrent.	Mats made from it, also used as fuel.
Písi		Wild tree ..	Bolán river hills.	Fuel.
Pítav. ...		A grass ...	All hills.	Fodder for sheep, goats, etc.
Purchénk ...	Mentha sylvestris.	Wild lavender.	Above Mach.	Fooder for camels and goats; cooling drug.
Ríza... ...	Cuminum cyminum.	Cumin ...	Shúg and Nodgwár hills.	Condiment.
Sarv... ...			Mach garden.	
Séb	Pyrus malus ...	Apple ...	do. ...	
Séh chob ...		Wild tree ...	Bolán hills.	Fuel.
Shaftálu ...	Prunus persica...	Peach ...	Mach and Rindli.	
Shámpashtír..	Sophora Griffithii, Stocks.	Wild bush...	Above Mach.	Used as fuel.
Shinz ...	Alhagi camelorum.	Camel thorn.	Láléji.	Fodder for camels.

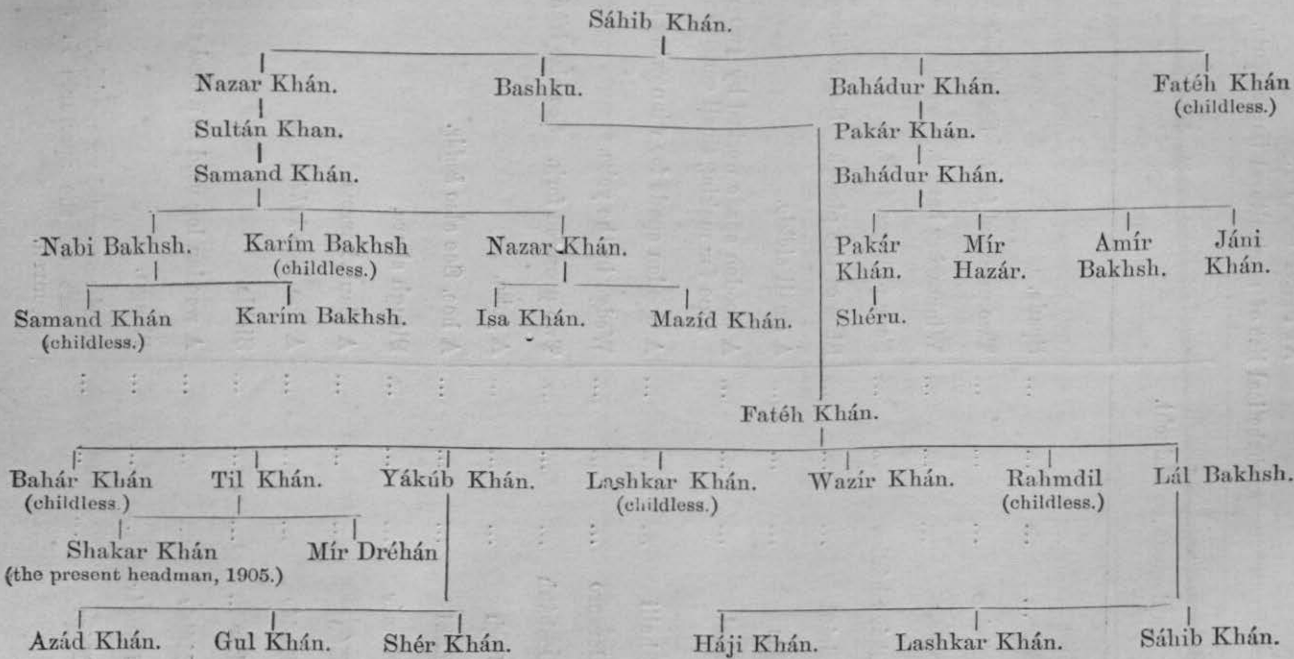
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APPENDIX I.—(*contd.*)

Baluchi name.	Scientific name.	Description or English name when known.	Locality where found.	Brief remarks as to local uses.
Sibr		Grass ...	Kirta and southern parts of Bolán.	Grass for cattle, sheep, goats & horses etc.
Simsok ...	Nepeta glomerulosa.	Wild plant...	Khurásán hills.	Decoction used for fever.
Sinjid ...	Elæagnus hortensis.	Trebizond date or Bohemian olive.	Mach garden.	Fruit eaten dry; good timber.
Sirín ...	Albizzia julibrissin.		Rindli.	
Súajnra ...			do. ...	
Tola angúr ...		A plant ...	Rindli.	Leaves are used for rheumatism.
Turin ...	Citrus medica ...		Mach and Rindli.	
Tút	Morus ...	Mulberry ...	do. ...	
Wazhdár ...	Glycyrrhiza glabra.	Liquorice ...	Mach and hills north of it.	A drug (Indian *mulathi*).
Zámúr ...	Cocculus leæba, D. C.	Tree ...	Near Bíbi Naní.	Evergreen tree; leaves used as medicine for eyes.
Zárch ...	Berberis vulgaris. Linn.	Barberry ...	Khurásán hills.	Roots used as drug for jaundice.

APPENDIX II.

Genealogical table of the Banguláni Kuchiks.



BOLAN.

APPENDIX III.

Alphabetical list of agricultural implements.

Name of implement in Baluchi.	Explanation.
Bél	Spade.
Biháno	Two pronged fork. See also *doshákh.*
Chhaj	Winnowing basket.
Chár Shákha	Four pronged fork.
Chúni	Shoe of the plough. See *zubánagh.*
Dás	A small sickle.
Dhal	A wooden spade worked by two men with a rope for making small embankments.
Dhalli	A wooden spade for winnowing grain.
Doranro	Wedge in the yoke.
Doshákh	Two pronged fork. See also *biháno.*
Jugh	A yoke.
Kahi	A hoe. See also *kodár.*
Kamér	Plough share.
Kén	A plank harrow.
Kodár	A hoe. See *kahi.*
Lor	Sickle.
Málav	A wooden log used as a clod crusher.
Nangár	Plough.
Náro	Leather-covered rope, with which the lower part of the apertures in the yoke are secured.

BOLAN.

APPENDIX III.—(*continued*).

Name of implement in Baluchi.	Explanation.
Og	A wedge in the plough. See also *phádav.*
Pahuri	A spade.
Phádav	A wedge in the yoke. See also *Og.*
Ramba	A weeding trowel or spud.
Shappinr	A hoe.
Shatink	The shaft of the plough.
Sundh	A drill. Drilling.
Tafar	Axe.
Zubánagh	Shoe of the plough. See also *chúni.*

BOLAN.

APPENDIX IV.

Alphabetical list of agricultural, revenue and shepherd's terms.

Term in Baluchi.	Explanation.
Abo	Half ripe grain. Also parched corn.
Adh	First watering before land is ploughed.
Aeta	Land which is cultivated every year.
Afi (Br)	Irrigated land. See also *siáháf*.
Ahat	Wages paid to an artizan.
Ahati	Village artizan.
Alála	Weaning time.
Alor...	The refuse of the fodder after it has been eaten by cattle.
Ambár	Granary. A heap of grain.
Amrén	A pair of shears.
Angír bágh or Angúr bágh.	Vineyard.
Arat	Well worked with Persian wheel.
Arhari	Melon and fodder crops. See also *chétri*.
Bad	A bundle of a crop or man's load carried on back.
Bágh	Garden.
Bahr mardánsar	Distribution *per capita*.
Bahr pidri	Distribution *per stirpes*.
Band	Embankment, also a plot of land enclosed by embankments. See also *lath*.

BOLAN.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Bashámi	Autumn harvest. See *sánwri.*
Batái	Division of crops. Also Government revenue in kind.
Béghár	Forced labour.
Bént	A plot of cultivable land in the bed of a stream. See also *kachh.*
Bhánro	Sheep, goat or cattle pen. See also *wáro.*
Bhari	A man's load carried on the head.
Bhánr	Manure.
Bhél	Melon field from which all fruit has been picked. See *lásh.*
Bhotár	Landlord (as distinguished from *ráhak*). See also *daghár wája.*
Bij	Seed.
Bind	Young melon.
Bogh	Crop when knots have appeared in the stalks.
Boh	Chopped straw (*bhúsa*).
Boh dharo	Heap of chaff on threshing floor.
Boh koti	A hut for storing *bhúsa.*
Boro	A bullock sack made of wool or goat hair.
Bugri	A piece of land given to a tenant or *mullá*, free of rent, for cultivation.
Búhari	Water-divide.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Bun joháni	A portion of grain set aside out of the main heap for the wages of artizans and village expenses. Also the refuse of the grain heaps given by the landlord to the tenant.
Búr	Buds.
Bush	Lopping the tops of wheat or barley before the crop is ripe.
Buz	Full grown he-goat.
Buzgal	A flock of goats.
Cháb	An embankment in a stream made of brush-wood.
Chaghal déyagh	To winnow. See also *gwát déyagh.*
Chammagh...	A spring.
Chamari	Dried apricot fruit.
Chapar	Weighted thorn hurdle used for threshing grain.
Char	Swampy ground with close grass on it.
Chari	Trench between ridges in a melon field, or vineyard.
Chatro	A wasp nest. Young green wheat or barley crop clinging to the ground. See also *tiki.*
Chatto	Wooden aqueduct.
Chén	Shearing sheep and goats.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Chéni	A shearer.
Chétri	The melon and fodder crops. See also *arhari*.
Chhat	Sowing seed broadcast.
Chhér	A body of men employed in cleaning water channels.
Chur	A small hill torrent.
Dabb	Water running slowly owing to a block in a channel.
Daghár	Property in land.
Daghár wája	Landlord. See also *bhotár*.
Dahmán	Stony land near the skirts of hills. See *sand*.
Dána bandi...	Appraisement of standing crops. See also *kautra*, *moki* and *ijára*.
Déragh	A bundle of spun woollen thread.
Dháchi	Female camel.
Dhaggav	A plough ox. See also *kárígar*.
Dharo	A heap of straw, whether covered with sand or not.
Did	Wheat or barley the ears of which have formed but in which the corn is not visible. See *gab*.
Dhanz	Chaff scattered on the threshing floor apart from the main heap. See also *toh*.
Dhénrú	A milch sheep or goat given on loan or hire.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Díkh	Spindle for wool.
Dohagh	To milk.
Drosh	A cut made by flockowners in any animal's ear to serve as a distinguishing mark.
Dukál	Drought, also famine.
Dumb	Stagnant water.
Dunangári	Ploughing after seed has been sown.
Gab	Wheat or barley the ears of which have formed but in which the corn is not visible. See *did.*
Gagra	A menial who cleans the threshing floor.
Gáh	Threshing. See *gowat.*
Gandím	Wheat, also spring harvest.
Gando	An earthen dam in a stream.
Garat	Young melon.
Gávéra	A tract of land near a village which is well manured and in which fodder crops are grown.
Géchin	Sieve.
Ghér	A ford. The place for watering flocks etc. See also *tar.*
Ghunj	A large bullock sack.
Gich	Sods of turf.
Girift	Seeds which do not germinate.
Gokh	Cow.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Gowál	Cowherd.
Gowat	Threshing. See *gáh*.
Guránd	Ram.
Gwanko	Lit. a spy. The first few plants which appear in a field.
Gwarkáni shufánk ...	A shepherd who tends young lambs.
Gwarpanr	A flock of lambs.
Gwatigh	Short showers of rain during spring.
Gwát déyagh	To winnow. See also *chaghal déyagh*.
Gwátamál	Ears of wheat withered by wind.
Har	A flood.
Hashar	Borrowed labour for agricultural purposes.
Hashari	Labourers obtained under the *hashar* system.
Hít	Green wheat and barley cut for fodder.
Hízak	Skin used for churning butter.
Hoshagh	Ear of corn.
Hoshagh chinokh	A gleaner.
Ijára	Lump assessment; appraisement of crop; system of land mortgage. See also *moki*, *kautra*, and *dána bandi*.
Inám	Revenue-free holding.
Jandr	Water mill.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Jat	C el herd.
Jhal...	Wheat chaff.
Jo	Water channel.
Johán	A heap of cut crop collected at the threshing floor.
Jora	A plot of land which can be ploughed by a pair of oxen in a day; also a pair of plough oxen.
Kach	Survey.
Kachh	A plot of cultivable land in the bed of a stream. See also *bént.*
Kalar	Salt land.
Kambhári	A sling.
Kanagh	Husked rice.
Kanda	Chaff.
Kángar	The stalks of *juári* without juice.
Karab	Green stalks of *juári.*
Káréz	Underground water channel.
Kárígar	A bullock. See also *dhaggav.*
Kaur	A hill torrent carrying flood water.
Kautra	Appraisement of crop for fixing Government demand in cash. See also *moki, ijára* and *dánabandi.*
Khákáf	First watering of a crop.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Kéri	First ploughing after harvest. See *shom*.
Khaf	Payment generally in sheep or goats made by certain tribesmen to their headman as a poll tax.
Kirmi	Affected by insects. Thus *kirmi-téjagh*, a melon affected by insects.
Kishár	Cultivation.
Kitti	Half ripe rice plucked off the stalks.
Kohánr	Lit. hump of a camel or bullock. A mark made on sheep by cutting the wool or applying colour.
Kohli	An earthen receptacle for storing grain.
Kohri	Small heaps of grain made at the time of *batái*.
Kubij	*Juárí* stalks which wither immediately they have germinated.
Kúh	Well.
Kurdagh	Small bed or plot in a field.
Láb	Harvesting. See *ron*.
Ladh	To clear land of shrubs etc.
Lái	Wages paid to reapers.
Lái-hár	Reaper.
Lásh	Melon field from which all fruit has been picked. See *bhél*.
Lassi.	Light showers of rain continuing for several days in winter.

BOLAN.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Lath	Embankment. See also *band*.
Lashti	A small irrigation channel.
Lathband	The man who first constructs the embankment (*lath*) round a field, and acquires a right of occupancy.
Lérav	Male camel.
Lizzi	Rice stalks.
Luhár	Blacksmith.
Mahálav	Crop sown seasonably.
Mat or matti daghár ..	Soil which contains silt or *mat*.
Mégar	A flock of sheep.
Meh or méhro	The pole in the centre of the threshing floor round which bullocks revolve.
Mésh	Sheep.
Míd	Goat hair.
Míra	Water superintendent.
Mírát ... ... }	Ancestral land.
Míráti ... ... }	Ancestral land.
Moki	Appraisement of fodder crop for fixing Government demand in cash. See *kautra*, *ijára* and *dánabandi*.
Musht	A handful of cut crop.
Nár	Land cleared of its crop.
Nihál	Young trees.

BOLAN.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Nokáf	Rain water.
Nokar	An official care-taker for crops.
Nokh	Land cultivated after two or three years.
Páchálav	Crops sown late.
Pal	A structure made of mats for storing grain.
Palál	Wheat or barley stubble.
Panéri	Seedlings.
Páon	Second watering of field after seed has been sown.
Parghat	Second threshing as distinguished from *gowat*.
Pasal	Cultivation.
Patwári	Village accountant.
Pazham	Sheep or camel wool.
Pés	A division of a field, a plot.
Píli (Br.)	A bundle of cut crop especially wheat.
Pírai	A sheep or goat set apart for sacrifice at a shrine.
Pirh	Threshing floor.
Pís	Wages paid for grinding corn.
Potav	Soft soil.
Ráhak	Tenant as distinguished from *bhotár*.
Ramagh	A flock of sheep and goats.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Rasúl wáhi...	The first *kása* (measure) taken out of a heap of grain when measuring it and given to the *mullá*.
Ratti	Rust.
Rékhur or Rekho	Sandy soil.
Rér	Fields along slopes of hills.
Ron	Harvesting. See *láb*
Rot	The seedlings of *juári* transplanted by hand.
Rumb	The work of transplanting seedlings.
Sáf	Crop of wheat or barley in which all the ears of corn have appeared.
Sáli	Unhusked rice.
Sámbor	A fattened sheep or goat.
Sán	Men-at-arms furnished to the Kháns at times of emergency in pre-British days.
Sand	Stony land along the skirts of hills. See *dahmán*.
Sarsáya	A quantity of grain given annually by each family to the village *mullá*.
Sitli	A bundle of *juári* stalks.
Sánwri	Autumn harvest. See *bashámi*.
Sháhjo	Main irrigation channel
Sharíkhi daghár	Undivided or common land.
Shíragh	Half formed grain.

BOLAN.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Shom	First ploughing after harvest. See also *kéri.*
Shufánk	Shepherd.
Siáháf	Perennial water, also irrigated land. See also *áfi.*
Siáh Zamín...	Black soil, the best kind of land.
Sok	Withered *juári* crop.
Sukári	To sow seed in dry land, then plough and water it.
Sundh	Drilling; also a drill.
Sursát	Supplies collected for Government officials.
Tand	A rope provided with nooses to which sheep and goats are tethered.
Tánda	Dry stalks of *juári.*
Tar	The place for watering flocks etc. See *ghér.*
Tazáf	Swampy ground.
Téjár	The second crop of *juári* which does not ripen.
Tij	Any newly sprouting crop.
Tiki	Young green wheat or barley crop clinging to the ground. See also *chatro.*
Toh	Chaff scattered on the threshing floor apart from the main heap. See also *dhanz.*
Tolár	A small flock of sheep or goats.
Trangar	A net for carrying *bhúsa.*
Tuhmi	Bundle of rice seedlings.

APPENDIX IV—(*continued.*)

Term in Baluchi.	Explanation.
Tuk	Fixed contribution paid to a *mullá*, Saiad or shrine.
Turi	Stalks of *juári* containing sweet juice.
Wad	The commencement of harvest.
Wáh	Main water channel.
Wal	Melon plants ; any creeping plant.
Wáro	Sheep, goat or cattle pen. See *bhánro.*
Warkh	A small embankment at the mouth of a water channel.
Zágh	A heap of cleaned wheat.
Zághal	A flock of kids.
Zank	Lambing season.
Zhalo	Sandy soil containing gravel.
Zobahi	Lambs given to a shepherd as his wages.

BOLAN.

APPENDIX V.

Translated purport of the award of the *Sháhi jirga* held at Quetta on July 27, 1891, in the matter of the dispute about land in Kirta between Shakar Khán, Wazír Khán, Nabi Bakhsh and Bahádur Khán, Banguláni *sardárkhél,* plaintiffs; and Tamáz (or Tamás) Khán, Jalambáni headman, and Islám Khán, Chotai headman, defendants.

It appears from the records that when Sir Robert Sandeman came to Baluchistán in 1875, the Kirta village was deserted, as it had been looted by the Marris. When Sir Robert Sandeman made peace between the Khán of Kalát and the Bráhui *sardárs* and arranged for the safety of the Bolán Pass, Sardár Til Khán* and other Kuchiks came back to Kirta and began to cultivate the land. With the extension of peace, the cultivation also increased, and Tamáz Khán† and Islám Khán, leading men among the Jalambánis and Chotais which sections were proprietors from olden times of the Kirta land and, owing to the insecurity of the country, had migrated to Dádhar, began to put forward their claims to the land and filed several complaints. On January 17, 1881, in a dispute between Til Khán and Nabi Bakhsh, the *jirga* gave an award that the Banguláni *sardárkhél* section was entitled to one-fourth, and their *ráj* ‡ namely the Jalambánis, Chotais and others, to three-fourths of the Kirta land, except such tracts of lands which had, from time to time been given to the sardár by the *ráj*; that the fourth share belonging to the *sardár khél* had been set apart and owners could distribute it among themselves, while the three-fourths should be proportionately distributed amongst such Kuchiks and *hamsáyáhs* as were willing to reside in Kirta. For it had been the intention of Mír Nasír Khán and the succeeding Kháns of Kálat that only those who lived at Kirta should participate in the land, and that those who left the place should have no claim. This, the *jirga* said, was borne out by the *sanads* granted by the Kháns which had been produced by the parties. The defendants were warned at the same time, that, if they wished to participate in the land, they should reside at Kirta. The arrangement was approved by Sir Robert Sandeman and has been acted upon ever since.

* Til Khán is dead. His son Shakar Khán is the present headman (1905).

† The present headman is Bakhtiár Khán son of Tamáz Khán.

‡ *Ráj* means the tribe generally as distinguished from the members of the *sardárkhél.*

BOLAN.

APPENDIX V.—(*contd.*)

Last year (1890) the defendants conspired with Shakar Khán, son of Til Khán, and obtained an agreememt from him to the effect that one-fourth of the land belonged to the *sardárkhél*, and three-fourths to the *ráj*, that is the defendants. On the strength of this arrangement the defendants refused to give shares to the *hamsáyáhs*, and to those Bangulánis who had hitherto participated in the land belonging to the *ráj* (as distinguished from the share of the *sardárkhél*). But, in accordance with the decision of September 24, 1890, the sardárs of the *jirga* considered the defendants' contention futile; they upheld the decision of 1881, and thought the right of those who had been participating in the *ráj* land a legitimate one and recorded detailed conditions for future guidance.

Now the Jalambánis and Chotais have settled at Kirta, and wish to cultivate the *ráj* land themselves; hence there is a dispute between the parties on the following two points:—

First: the plaintiffs allege that the fourth share of land which is in the possession of the Bangulánis is proportionately less than the three-fourths belonging to the *ráj* and they ask that an exact fourth be measured and given to them. The defendants on the other hand argue that the fourth share of the *sardárkhél* was divided and set apart long ago, and assert that it is not necessary to make a fresh division, but that if a fresh division is to be made, various other plots of land in the possession of the *sardárkhél* should also be included and the whole divided.

Secondly: the plaintiffs wish that the Bráhuis and others who have for long been residing as *hamsáyáhs* with the *sardárkhéls* at Kirta under various difficulties, who have shared in the good and ill and in the *ghamkashi*,* and have participated in the land should, as usual, receive their shares in proportion to the number of men residing at Kirta. The defendants do not agree to this, but allege that they are the real proprietors of the land and that, as they are themselves now cultivating the land, the *hamsáyáhs* have no claim.

The award of the sardárs composing the *jirga* on the above two points is as follows:—

First.—There is no doubt that the fourth share of the Bangulánis was divided from the rest long ago, but it is also known that the remaining three-fourths were under their control, and the headman of the Bangulánis had the power himself to cultivate or give to the *hamsáyáhs* what he wished, more especially so during the time when the Jalambánis

* Services etc. required by the State.

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APPENDIX V.—(*contd.*)

and Chotais and their headman had migrated from Kirta, and settled at Dádhar. Since these men have returned to Kirta, the sardár has not had the same power. The defendants particularly decline to give any further share to the Bangulánis beyond the three *tírs*, the *chúnra*, and the *niám digár* mentioned in the award dated September 14,* 1890. In our opinion it is necessary to redivide the land. It has been determined, with the consent of the parties that the sardár is entitled to *niám digár*, *chúnra* and *séri* in the *do sála* land i. e., the land cultivated every second year, but in the third year the *chúnra* will also be separated. That is to say, the *niám digár* hitherto so recognised will continue, but when lots are cast for each harvest one *tír* will first be given to the sardár. *Séri* exists only in the Damb land, and does not exist in other tracts. All the land including the *géwára* plots will be surveyed, and one-fourth of it will be set apart for the Bangulánis, which they will distribute among themselves according to ancient custom. The *géwára* plots will count as a part of the fourth to be set apart for them. The remaining three-fourths will be proportionately distributed, annually, according to the population (*makhlúq*) and the amount of water. The *hamsáyáhs* of the Bangulánis, Nabi Bakhsh Banguláni, and Bahádur Khán Banguláni, will continue to receive their shares from the lands of the *ráj*, in accordance with the settlement of September 24, 1890, and also Nabi Bakhsh will receive his 3 *bit*.†

Secondly.—As regards the *hamsáyáhs*, our opinion is that they should as formerly, receive a proportionate share in the land to be cultivated, because they have borne the burden (*ghamkashi*), shared in good and ill, have in times of insecurity, risked their lives, and have remained with the *sardárkhél* on the land. The defendants saved their own lives by deserting the place. It is not advisable, now, when peace reigns, to put the defendants in possession of all the land and to eject the *hamsáyáhs*. Such of the *hamsáyáhs* who lived at Kirta with the *sardárkhél* section before the British occupation (*amaldári*), and participated in the cultivation and *ghamkashi* should receive their respective shares; but those who did not participate in cultivation or who have since come shall receive no share. This matter will be disposed of by K. B. Allah Dád Khán.‡

There have been long standing disputes among the parties, and as with

*This should apparently be 24th.

†*Bit*, a share of water; one-fourth of a *tír*.

‡The late Mír Allah Dád Khán, Khán Bahádur, then Native Assistant in the Bolán.

BOLAN.

APPENDIX V.—(*contd.*)

the increased security, the cultivation in Kirta is expanding, disputes are likely to recur among them at the time of each annual distribution of land. It is now advisable, therefore, to survey, map, and divide the land and it is necessary that Government should appoint a patwári who knows surveying and map making. He will prepare the map etc. and the division will be effected by the Native Assistant, Bolán. The patwári, will in future, also attend to the disputes between the parties. For the present the Government should take revenue at the rate of one-tenth, by division of crops (*batáí*) or by appraisement (*tashkhís*) to meet the pay of the patwári and other expenses connected with the management of Kirta. Hereafter, if the parties can manage their own affairs, the Government can make a reduction, or may enhance the rate, should it be found necessary.

(Sd.) R. B. Hittu Ram.
(Sd.) K. B. Mír Allah Dád Khán.
Seal of Sardár Shakar Khán.
Seal of Mír Wazír Khán.
Mark of Nabi Bakhsh.
Mark of Bahádur Khán.
Mark of Wadéṛa Tamáz Khán, Jalambáni.
Mark of Wadéra Islám Khán, Chotai.
(Sd.) S. Assad Khán, Raisáni.
(Sd.) Saiad Bahár Sháh.
(Sd.) Mír Suhbat Khán, Bangulzai.
Seal of Sardár Yár Muhammad Khán, Kúrd.
Seal of Sardár Dost Muhammad Khán, Lehri.
Seal of Mír Rashíd Khán, Shahwáni.
Seal of Saiad Ata Muhammad.

NOTE.—The parties accept the award except the proposal about revenue.

BALUCHISTAN DISTRICT GAZETTEER SERIES.

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CHAGAI DISTRICT

TEXT AND APPENDICES.

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PREFACE.

As in the case of the Bolán, the greater part of the work consists of original matter obtained by the Gazetteer staff, under the able supervision of Rai Sáhib Diwán Jamiat Rai, whose valuable assistance and unsparing diligence I have to gratefully acknowledge.

Much useful information has been obtained from the Baluchistán Census Report of 1901 compiled by Mr. R. Hughes-Buller, I. C. S., and I am greatly indebted to the article* on "the Southern Borderlands of Afghanistán" written by Captain (now Sir Henry) McMahon, C. S. I., C. I. E., to the various reports written from time to time by Major F. C. Webb Ware, C. I. E., the pioneer of the Trade Route and the first officer in charge of the newly formed District, to the notes compiled by Major R. E. Roome of Jacob's Horse, and to Mr. E. Vredenburg of the Geological Survey of India for his articles on the geology and minerals of the country. I would also acknowledge the excellent notes written by Rai Sáhib Jamiat Rai on the Méngal tribe and the domiciled Hindus of Nushki. A bibliography of other books relating to the District, which have been found useful, is given at the end of Chapter IV. Much of the material has also been reproduced, with the necessary local adaptations, from Mr. R. Hughes-Buller's *Gazetteer of the Quetta-Pishín District.*

My thanks are further due to Major R. A. E. Benn, C. I. E., Assistant Political Agent of Chágai, for his advice and suggestions on the drafts and for the promptness with which

* *The Geographical Journal*, Vol. IX, No. 4 of 1897.

the numerous references have been attended to, and to Mr. T. O. Hughes, Assistant District Superintendent of Police, Chágai, for valuable information furnished in connection with the little-known tracts of the Western Sanjráni country.

As it has been found necessary to employ a number of vernacular terms, the more important have been given in two glossaries, which are printed as appendices.

A. McCONAGHEY,

MAJOR.

QUETTA, May 1906.

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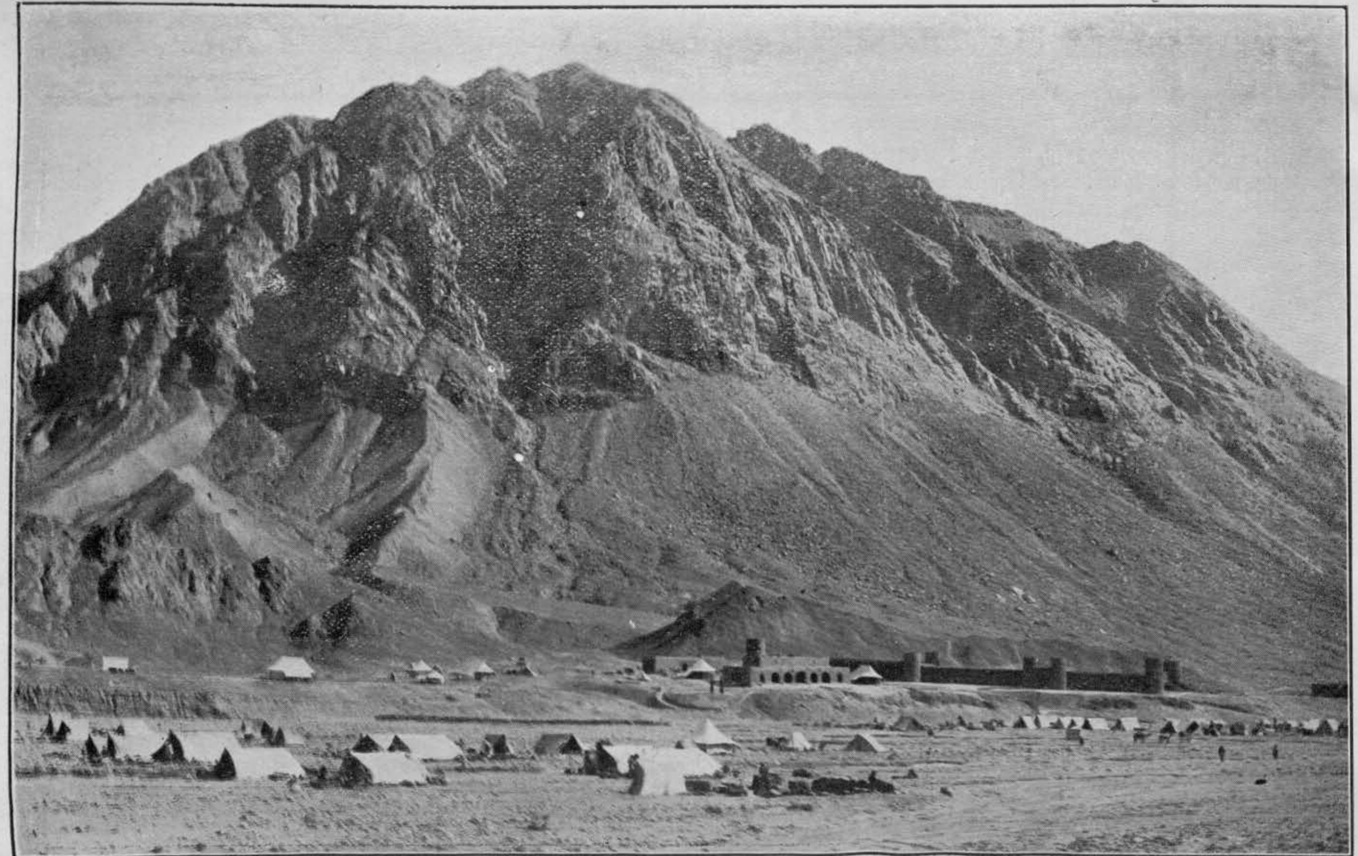
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Robat Levy Post.

CHAPTER I.—DESCRIPTIVE.

PHYSICAL ASPECTS.

Situation and dimensions.

The Chágai District lies in the western corner of the Baluchistán Agency between north latitudes 28° 2′ and 29° 54′ and east longitudes 60° 57′ and 66° 25′, and covers an area of 18,892 square miles. It comprises that belt of country which lies immediately south of the Baloch-Afghán boundary from the Sarlat hills on the east to Koh-i-Malik Siáh on the west, a distance of about 350 miles in a straight line with an average breadth of 50 miles. As now constituted for the purposes of administration, the District consists of three divisions, namely the Nushki tahsíl on the east, the Chágai sub-tahsíl in the centre and the Western Sanjráni tract on the extreme west.

Origin of name of the District.

It derives its title from Chágai, a village on the western border of the Lora Hámún, and local tradition attributes the origin of the name to the number of wells or *chấhs* which are said to have formerly existed in the vicinity.

Boundaries.

The District is bounded on the north by the desert regions of Afghánistán which lie to the south of the Helmand, on the east by the Sarlat Range and the Sarawán division of the Kalát State, on the south by Khárán and the Persian district of Bámpusht, and on the west by Persia.

The northern boundary was demarcated in 1895-6 by a joint Afghán and British Commission, Major Sir Henry (then Captain) McMahon, K. C. I. E., C. S. I., being the British Commissioner, and is fully detailed in the agreement* dated the 13th of May 1896, an extract from which is printed in appendix I. The general direction of this boundary from the foot of the Sarlat range to the Koh-i-Malik Siáh peak, which also marks the southernmost point

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* *Administration Report of the Baluchistán Agency for 1896-7.*

PHYSICAL ASPECTS.

of the boundary between Afghánistán and Persia, is due west, and the actual line runs for its whole length through a barren and desert country, the nature of which, however, presents many striking varieties. From the foot of the Sarlat to Chágai, the boundary lies along the southern fringe of the sandy Régistán desert. West of Chágai the character of the desert changes, and, instead of plains, lofty ranges of desert mountains upwards of 8,000 feet, are encountered. Between Rabát and Koh-i-Malik Siáh the boundary line runs for nearly 200 miles through a waterless desert. This part of the country has been described as consisting chiefly of stony and sandy plans and heavy sand hills, some of which assume the proportions of sand mountains.

The details of the southern boundary with Khárán have not yet been formally determined (1905), but, for administrative purposes, the limits of the District are recognised as extending to the foot of the northern slopes of the Ráskoh, Kambrán and Kargosh Kan Ranges. Further west, the Máshkél Hámún forms the boundary line.

On the east, the boundary between Chágai and the Sarawán country of Kalát was delimited in March, 1903, and the watershed of the Garr hills of the Sarlat Range was established as the line of division between the two districts. The boundary with the Quetta-Pishín District has not yet been defined, but it is assumed to be formed by the watershed of the Singbur Chaman.

The western boundary, which is a part of the boundary line between Baluchistán and Persia, was demarcated in March 1896 by Colonel Sir Thomas Holdich, and the following description of the portion which affects the Chágai District is taken from the agreement signed by the British and Persian Commissioners. "From pillar XI, which is erected on the north-west corner of the Hámún-i-Máshkél northwards the Táláb river becomes the boundary to its junction with the Mirjáwa river. From the

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point of junction it is carried by a straight line to the nearest point on the watershed of the Mírjáwa range, which limits the drainage into the Mírjáwa river on the north. Thence it follows the main watershed northward to the highest point of the Kacha Koh. From the highest point of the Kacha Koh, the line is carried straight to the highest point of the Malik Siáh Koh." A massive stone cairn, about 20 feet high, erected on the summit of the Siah Koh hill marks the point where the British, Persian and Afghán territories meet.

Configuration.

The physical aspect of the country comprised within the limits of the District is very varied, but the main features are sufficiently distinct to be classed under the three heads of highlands, low-lands and deserts. The highlands comprise the Chágai and Koh-i-Sultán Ranges on the north, the eastern portion of the District included in the Sarlat Range, and the Mírjáwa and Kacha Koh and Ráskoh hills on the south-western border.

The country between Nushki and Chágai consists chiefly of a vast level plain of alluvial soil, interspersed with tracts of sand, and intersected by a low range of stony hills, known as the Bilau Range, which runs east and west from Nushki to Dálbandin. Small detached hills of black limestone, which rise abruptly from the plain, are also to be met with in many parts. "All along the north of this plain," says Captain McMahón,* stretches the wide sand desert called Régistán, a vast sea of billows and billows of sand upwards of 200 feet high, which is slowly but surely advancing year by year and burying the flat alluvial plains to the south and east. * * * * You find on the level plains stunted shrubs of all sorts, and all over the sandy portions abundance of a species of tamarisk, known as the white tamarisk and called by the natives *tágház*. It grows to some size, but always looks a bleak, starving

* *The Geographical Journal*, Vol. IX, No. 4 of 1897.

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neglected sort of tree. It assumes a weird and ghost-like appearance in the moonlight and somehow always seems to impress a sad mute protest at the howling sandy wilderness around it."

Between the Régistán or "country of sand" and the plain, the sand hills are thickly sprinkled with bushes and vegetation, and the hollows often hold patches of alluvial soil which can be cultivated in favourable seasons. This region of "half desert" or *nim choal* extends from 5 to 10 miles inwards, and affords good pasturage for numerous flocks of sheep and herds of camels.

The portion of the plain, which stretches to the southwest along the course of the Lora as far as the Lora Hámún, and the average width of which is about 15 miles, is known as the "Dák" which is probably a corruption of the Bráhui *dag*, and corresponds to the word *pat* or plain so commonly used in the southern part of the Agency. The soil is a deep light loam and is naturally very fertile.

The country beyond Chágai is a veritable waste land, and consists of sandy deserts and stony or gravelly plains, bordered by ranges of barren limestone and shale mountains and containing hills of volcanic origin. Sandy deserts lie to the north and south of what may be considered as an isthmus of hills connecting the Chágai Range with the Kacha Koh mountains. This isthmus consists of low hills lying to the east and west of the Koh-i-Sultán, the first stretch connecting the Chágai hills with the Koh-i-Sultán, and the second joining the Koh-i-Sultán with the Kacha Koh. It is accross this isthmus that the main Seistán route runs. The whole isthmus consists of black stones, in some parts lying loosely on the surface of the soil, and in others so level and closely packed that one might almost think that a steam roller had been worked over them. The desert on both sides consists of miles of rolling sand hills, and in the distance on either side may be seen the white surface of the Gaud-i-Zirréh on the

north and the Hámún-i-Mashkhél on the south.

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Moving sandhills.

Between Cháh Sandán and Trato and between Kundi and Mashki Cháh are to be seen the curious moving sand-hills, of which the following description has been given by MacGregor.* "All are shaped alike, and are of the form of a crescent, the horns being to the south, and the toe to the north. They vary a good deal in height, the top of the largest ones being about 60 feet above the plain, and sloping down gradually to the horns, where they mingle with the sand. The outer slope is at an angle of about 30°, bulging a little in the centre and the inner at about 45°, or as steep as sand will stand. At the top of the outer slope and at the toe of the crescent is a steeper slope about 3 feet in depth, and this gradually disappears at the horns where the whole outer slope is uniform. It is difficult to imagine how these sand crescents can have been formed on a perfectly level plain, but I imagine that in the first instance the sand blown from the north has met some obstruction, such as a bush, which has had sufficient strength to withstand the weight, till a bank of sand has been formed at the toe, and then the horns have been formed by the sand being blown from the toe towards the south. Each of these crescents, and there are hundreds of them, would afford cover enough for a regiment of cavalry."

The peculiar characteristics of the District are the *Hámúns* and *Náwars*, which will be described later, the constant mirages which appear in the deserts, and the sudden and severe sand-storms. Writing of these sand-storms Sir Henry McMahon says "The earth and sky become one mass of flying sand. It fares ill at such times with any one who struggles even a few yards from the line of march. Five minutes of a sand-storm would obliterate the deep tracks of an army corps."

* *Wanderings in Baluchistán* by Charles McGregor (1882.)

PHYSICAL ASPECTS. Hill ranges.

The general lie of the hills follows that of the Makrán system; that is to say, the chain of hills is twisted from the north and south line of the hills of northern Baluchistán to one running nearly east and west; but as the Persian border is reached, the hills again curve northwards, and thus present a vast irregular semi-circle conforming more or less to the curve of the Helmand river with the Khwája Amrán and Sarlat Ranges on the east and the Mírjawá and Malik Siáh hills on the western extremity.

Sarlat.

Commencing from the east, we have the Sarlat, or as it is sometimes called the Sarlath Range, which separates Shorarúd from Shoráwak and Nushki from the Sarawán country. This range is practically a continuation of the Khwája Amrán, the southern end of which it overlaps for about 15 miles, the crest of the two ranges being not more than 6 miles apart. Between them is the long defile of the Lora River. The main Sarlat Range terminates at the debouchure of the Khaisár stream into Nushki; but beyond this the hills continue to run south-south-west, and form the scarp between the highlands of Baluchistán and the great desert plains of Seistán and the confines of Persia. The average elevation of the Sarlat above sea-level is nearly 6,000 feet. Its crest line is unusually regular, and throughout its whole length of nearly 60 miles there is only one well-marked peak. This is known as Chari Ting or Sáru, and has an elevation of 6,330 feet. The geological formation of the Sarlat corresponds with that of the Khwája Amrán. The eocene shales of the latter form the main range, while the syenitic granite of the western Khwája Amrán and Tangs reappears in a broken disconnected ridge, cropping up between the west base of Sarlat and the Shoráwak plain. At the debouchure of the Khaisár into the Nushki plain, the Sarlat ends in a scarped conglomerate, or pudding-stone hill, six or seven hundred feet high and called Kuti. Immediately above, the main range is locally known as Gauri or

Garr. Higher up, parallel to the Ghori *nullah*, it is called Shur; and opposite to Iltáz Káréz the Bráhuis term the range Píshi. PHYSICAL ASPECTS.

The principal paths leading across the range in the District are (1) the Mohat, which lies to the north of the Sáru peak and leads to Zaburdat; (2) the Wala or Gét (willow), situated a few miles to the southwest and leading from Iltáz Káréz to Miru; (3) the Sirkáo *nullah* between Bara Káréz and Haibat Ziárat leading to Yár Muhammad and Sáhibzáda; and (4) the Chaokul which runs above the junction of the Ghori and Khaisár streams and leads to Nushki. The last three are fit for laden animals.

The general conditions of this range are like those of the Quetta and Kalát highlands, the mountains being intersected by long, narrow valleys, all of which exhibit similar features and consist of flat plains of alluvial soil in the centre, with a pebbly slope or *dámán* of varying length rising on either side to the surrounding mountains. These beds continue into the hills in the shape of mountain torrents, which in the lower parts are full of large pebbles and in the upper reaches of boulders.

The Ráskoh Range.

South of Nushki is the Ráskoh Range which lies between 28° 25′ and 29° 13′ North, and 63° 57′ and 66° East, and is an extension of the Khwája Amrán offshoot of the Toba Kákar Range. It derives its name from its highest peak (9,899 feet) which rises in an abrupt cliff or head from the centre of the range, *rás* in Arabic meaning a headland or cape. This appears to be the correct origin of the name, but according to popular legend, Ráskoh was the name of a Malik saint whose shrine, Langar-i-Malik-Ráskoh, is situated on the summit of the peak. The range is apparently identical with the Qáran or Bárfén mountains whose ancient inhabitants at the

PHYSICAL ASPECTS.

time of the Amawi Caliphs were supposed to be Zoroastrians.*

The range extends for about 140 miles in length and from 20 to 30 miles in breadth, with a gradual slope to the southwest in which direction it eventually sinks beneath the superficial deposits of the Western Sanjráni desert. The component ridges have many irregularities, and the majority are exceedingly steep, rocky and barren. The principal peaks from east to west are Sheikh Husain (6,875 feet), Ráskoh or Ispédár (9,899 feet), Kambar (8,690 feet), Kambrán (8,518 feet), Ziro (7,329 feet), Morti-ai-Sar (7,065 feet), Shahín (6,898 feet), Malik Rásáni Chárián (5,707 feet) and Malik Surinda (6,532 feet).

The geological formation is complex, consisting sometimes of tertiary limestone, sometimes of flysch and sometimes of igneous outcrops, the latter being best represented by the Ráskoh peak. There are several streams or rather mountain torrents, but few of them are of any size or of a permanent nature, the Kánián with a perennial supply of water being the largest. Springs are, however, generally found in all the larger *nullahs* at an elevation of about 7,000 feet.

Only the central and western portions of the range are inhabited, and there are two settlements at Kallag and Nigwar, which contain a permanent population of Siáhpád, Rakhshánis and Nigwáris, all of whom are better known by the local name of Kohi Siáhpád. They are hardy hillmen of a somewhat low type and seldom leave their hills. They cultivate numerous patches of ground in the neighbourhood of the Ráskoh peak, on which crops of wheat, barley and *juári* are grown; mulberries, vines, figs, peaches and pomegranates are also cultivated. There

* Abu Ishak al Istákhri, an Arab geographer (951 A. D.)

NOTE.—The Editor is indebted to Major C. O. Tanner, 127th Baluchis, for assistance in the preparation of this note.

are no forests and the indigenous trees are few and scanty, the principal being the date palm, the wild fig and pistachio. Tamarisks and willows are also found in the *nullahs*. Sind ibex (*Capra aegagrus*) and *Gad* or oorial (*Ovis Blanfordi*) are to be found throughout the range. The ibex are fairly numerous, but the oorial are scarce and the males carry small heads. Chikor and sisi are plentiful, and there are a few foxes and an occasional panther or leopard. **PHYSICAL ASPECTS.**

Principal passes. The principal passes are the Lúsi pass on the road from Régin to Dálbandin; the Haftén and Noti passes on the Hurmagai Dálbandin route; the Jálwár and Pír Puchi passes on the track from Jálwár to Dálbandin; the Tatagár pass on the Tatagár route from Khárán to Dálbandin; the Pahrod pass on the Bunáp river route from Khárán to Padag; and the Nimik and Táfui passes on the Khárán Nushki route. With the exception of the Lúsi pass, all the above are fit for lightly laden camels. Other tracks, which are used by foot passengers only, are the Gwáladir pass on the Hurmagai-Dálbandin route, the Raio pass on the Khárán-Dálbandin route, the Doki pass and the Buzáni Ráh on the Khárán-Dálbandin route.

There are signs of the existence of a higher civilization in earlier times, and traces can still be seen of places where iron ore used to be smelted; and in the Gédén *nullah* are to be found remains of enormous stone dams or *bands* across the bed of the torrent which show that in former days the water was fully utilised for the cultivation of terraced fields or gardens.

The whole range is dotted with shrines which give it a great sanctity in the eyes of the tribesmen, the best known being those of Sheikh Husain, Pír Búbak and Malik Kambar.

Gaukok hill. At the western extremity of this range is the low isolated hill known as Gaukok (5,000 feet).

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Kacha Koh Range.

The Kacha Koh Range extends from the Pachinán Koh, which is situated to the west of the Máshkél Hámún, in a north-westerly direction to the Koh-i-Malik Siáh. This range is approximately 100 miles in length, and the principal peaks starting from the Pachinán Koh are Drána Koh (3,644′); Saindak Koh (3,547′); Kacha Koh (7,164′); Lár Koh (7,669′); Robát Koh (5,264′) and Koh-i-Malik Siáh (5,632′). Kila Robát, the last levy post on the Nushki Seistán route, is about 2½ miles east of Robát Koh. Many of the hills are rich in minerals, lead, antimony, bismuth and ochre being the most valuable. There appear to be remains of lead and copper mines on the northern slopes of the Lár Koh hills, which according to local tradition were worked by the Arabs in former days. Turquoises are also said to be found in these hills. There are no settled inhabitants, but the Koh-i-Malik Siáh, Kacha Koh and Lar Koh are regularly visited by Mámá Sáni nomad encampments during the winter months, when good grazing can be obtained. Ibex and *gad* (oorial) are fairly numerous, and *chínkara* or Persian gazelles are to be found in the lower ravines, but game birds are scarce. The *gor* or wild ass is also occasionally to be seen along the skirts of the hills.

These hills appear for generations to have owned no masters; they were a no-man's-land of ill repute, and the favoured haunts of bands of thieves and outlaws, whose crimes had driven them from the society of their fellows. This part of the country was also subject to frequent raids by the Dámanis and other tribes of the Persian *Sarhad*.

Chágai hills. Situation and general description.

West of Chágai is encountered the great mass of the Chágai hills, which are also known as the Chágai Sarlat and the Malik Náru hills. This range lies between 28° 46′ and 29° 34′ N. and 63° 18′ and 64° 50′ E. and forms the water-shed between the Helmand and the Gaud-i-Zirréh to the north and the Máshkél Hámún to the south. The

general strike is east and west, the main mass extending for about 90 miles in length from Chágai to Jilijil in a westerly direction, and for about 35 miles in width from Baráb Cháh to Dasht-i-Gorán near Dálbandin. PHYSICAL ASPECTS.

The geological structure consists chiefly of basic and acid igneous rocks with occasional out-crops of quartz and diorite. Terraces of travertine (oriental alabaster) occur at the western end of the main mass. The full details of the geology of these hills are contained in the Records of the *Geological Survey of India*, Vol. XXXI, part II.

Besides the main mass, the principal subsidiary ranges are the Chhapar hills, dividing the Dálbandin plain from Chágai, and the Koh-i-Sultán, Damodín, and Koh-i-Dalíl Ranges.

Owing to its situation, the Chágai Range commands all roads from the Helmand, both from the west and the north, and therefore occupies an important strategic position on the north-west frontier. To the north-east it is inaccessible except by mountaineers between the Shibián and Mazári passes. The former pass (4,780′) is on the Afghán Baloch frontier near boundary pillar No. CLXI, and is crossed by a track running from Chágai to Sháh Ismáíl. The Mazári pass (5,585′) is situated at the northern end of the Mazári hills and connects Chágai with Mamu and the Barábcháh plain. The subsidiary passes are the Mazári *wad* which is a very narrow and rough ravine between Gargarok and Barábcháh, and is used chiefly by caravans coming to Chágai from Garmséì; and the Kushtagán (6,390′) which forms an alternative route from Gargarok to Barábcháh.

All these passes are regularly used by caravans. To the west lie the lofty mountains of Malik Téznán (7,686′), Malik Náru (7,915′), Nílgan (8,355′) and several other summits over 6,000 feet. This part of the range is traversed by roads converging on Sukaluk; the principal being (1) from Dálbandin to Barábcháh, (2) from Mérui to

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Barábcháh, (3) from Chágai to Barábcháh, and (4) from Mérui to Robát.

The drainage of these mountains is carried off by innumerable channels and hill torrents which only contain water after rain. The principal channels draining the eastern range and falling into the Lora-i-Hámún are; the Sháhi Músa, which rises about 4 miles south-east of the Shibián pass; the Talaran, which starts south of the Koh-i-Káh mountain; the Máhián near Hazárgunni; the Pirdád which rises about 6 miles west of the Mazári pass, and the Rahio and Balar *nullahs*.

Further west, are the Kushtagán, Balo, Chahilgazi, Morjén, Dadar, Karodak, Huki, Dargan and Wadhawan *nullahs*, which also drain the southern slopes and flow in a southerly direction. Among the channels which drain the northerly slopes may be mentioned the Gashto and Azni *nullahs*.

The inhabitants are few in number and consist chiefly of the nomad sections of the Muhammad Hasnis, who move from place to place with their flocks and herds according to the conditions of the grazing. The Hasanzai are found near Téznán, the Shérzai at Malik Náru, the Notézai at Sháh Umar, the Shahézai and Shah Kardag tribes near Baráb Cháh and the Kambarzai in the neighbourhood of Chágai. Owing to the pastoral habits of the people and the unsettled state of the country in former times, there is little or no cultivation, which is limited to small patches near Balánosh, Duganán, Padgiabán and Rohadju. Small *kárézes* have, however, been recently started at Kallag, Márgosh and Amuri. The Barábcháh, Básiláni and Kila Kand plains contain excellent soil and would appear to be capable of extensive cultivation.

The principal trees are the tamarisk and pistachio (*gwan*). The former exists in dense jungles in the western half of the hills and particularly in the Kallag, Huki Hámri and Básiláni valleys. The *gwan* trees are found on higher

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hills at altitudes above 5,000 feet. There is good grazing for both sheep and camels in all the higher parts of the range.

Ibex are said to be found on the rocky heights, but it is difficult to say if they are in any numbers, as their grazing grounds are steep and inaccessible and have never been properly explored. On the lower grounds, *gad* are fairly numerous. Hare, chikor and sísi are to be seen in most places, and the eggs of the Imperial or larger sand grouse have been found on the Barábcháh plain.

There are numerous shrines, the most important of which are those of Saiad Balánosh, Malik Náru, Malik Bastani and Sháh Umar.

The Chapar Range. About 15 miles south of Chágai is the Chapar range, a long line of high dipping limestones running in an east and west direction. On the east is the Mékh-i-Rustam hill (4,232′) an abrupt conical peak, and on the west the Kasánén (lesser) Chapar (4,170′) the central portion being known as the Mazánén or greater Chapar. The main limestone mass has a thickness of about 300 feet. It rests upon a considerable thickness of green shales and sandstones similar in appearance to those which constitute the Khojak hills. This range is altogether barren and uninhabited.

Koh-i-Sultán. The Koh-i-Sultán mountains lie to the west of the Chágai hills, and before the ridge joining them to the range was levelled by accumulations of sand, formed the western spur of the main mass. They are now separated by a sandy plain about 30 miles in extent. They are a barren and uninhabited mass of craggy volcanic peaks, impregnated with sulphur, alum and other minerals. Owing to this fact, the water in the wells round the Koh-i-Sultán is so full of minerals as to be almost unfit for human consumption.

The range derives its name from a mythical saint, a brief account of whom is given under "Shrines" in the

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section on **Population**. The following account is taken from Mr. Vredenburg's description of the volcanoes of the Baluchistán desert. "The Koh-i-Sultán is an oval shaped mountain, whose longer axis striking west-north-west is about 17 miles, the transverse width being about 10 miles. It is an extinct volcano consisting of rocks very similar to those of the Koh-i-Tafdán, but instead of forming one cone the centre of eruption seems to have shifted several times, so that the mountain is really an aggregate of three distinct cones, now greatly denuded, whose centres are disposed along one straight line." * * *

"The original summits of the three cones have been entirely denuded away. The western cone has been denuded to such an extent that it now forms a great circular plain 4½ miles in diameter, surrounded by a beautiful amphitheatre of cliffs. It is an instance of the kind of feature termed by Lyell a 'crater of denudation.' All the drainage of this amphitheatre is gathered into one channel, the Gam-i-Cháh river. The cliffs that surround this amphitheatre consist almost entirely of accumulated ashbeds. They do not everywhere rise to the same height in one broken line, but have been variously shaped by the agencies of denudation; some portions which have been less denuded stand out as isolated masses or as outstanding pillars, like the Néza-i-Sultán. * * * The Néza is only an unusually lofty mass of ash-beds isolated by denudation.

"The three cones appear to have succeeded one another in the direction of west to east, but the eruptions may have been partly simultaneous, judging from the manner in which beds dipping in opposite directions overlap one another."

Captain A. H. McMahon who also explored this range when delimiting the Indo-Afghán boundary in 1896, gives the following account of these hills: "On passing as we did to the north of this range, we were greatly struck by

the queer, grotesque shapes of its numerous sharp peaks and more especially by the appearance of what, as we saw its from a distance, looked like a huge masonry pillar erected on the crest line of the range. This pillar is known as the Néza-i-Sultán, i. e., the spear of Sultán. On entering the range our trouble was well rewarded, for a more extraordinary mass of mountains it is almost impossible to conceive. As we rode along in the bright moonlight we saw high pointed pinacles and minarets all round us, and here and there steep masses of conglomerate which formed the peaks, looked exactly like old Gothic cathedrals and churches. Nor did this resemblance fade away in the daylight. The Néza-i-Sultán we found a truly marvellous feature. It is a perpendicular column of hard conglomerate, with straight precipitous sides. The fissures made by rain and weather action down its sides give it a fluted appearance from a distance. We expected to find a high natural pillar, but were not prepared for the stupendous size of the reality. Judging from its width at the base, which is over 100 yards in diameter, the height must be not less than from 500 to 800 feet; and you can, therefore, realize the effect of this gigantic column when seen from below." PHYSICAL ASPECTS.

The hills are much frequented by Bábars and other Kákars from the Zhob Khurásán who come to take away asafœtida. These arrive in parties of twenty and thirty about the end of March and stay for three months or more. Besides asafœtida, the range has large deposits of sulphur, alum, ochre (much sought after for dyeing), copper and antimony. Like the Kacha Koh hills, this neighbourhood bore an evil reputation in former days as the haunt of thieves and out-laws, and the district was subject to constant raids by the Dámánis and other predatory clans from the Persian border.

The principal peaks from the north are the Koh-i-Khansúri, which from the distance bears a resemblance to

PHYSICAL ASPECTS. the Sphinx, the Shér Khán Chakul (6,806), the Míri (7,660), and the Néza-i-Sultán (4,370 feet).

The best known tracks are those which lead through the Washáp pass (about 16 miles) from Mashki Cháh to Malik Náru; and from Amír Cháh to Manzil, past the Girdi Rég sand hill.

Damodín. Further west, are the Damodín hills, a small range of extinct volcanoes lying to the south of Amír Cháh; the highest peak being 6,333 feet. An abundant growth of asafœtida is found on the lower slopes. In the vicinity are several other smaller isolated peaks of volcanic origin, the chief of which are the Mit Koh (4,140′), the Sor Koh or Sor Kowak (5,430′) and the Koh-i-Humai (4,479′).

"These hills" says Sir Henry McMahon, "are all being gradually covered up and buried in the sand which is relentlessly creeping further and further up their sides. Many are already completely buried, and a high mountain of sand marks their burial place. Others have their black peaks appearing out of the white expanse of sand slopes. Here and there a loftier mass still towers with its black crags high above the devouring waste around, but the sand, banked up on their sides in places sometimes 1,000 or 2,000 feet above the level of their base, foretells a similar fate in store for them. The general effect the scene presents its weird and unnatural in the extreme."

Koh-i-Dalíl. Twenty miles west of Damodín is the isolated volcanic peak of Koh-i-Dalíl (4,476′), a solitary dark-red coloured hill about 35 miles east of Amaláf and 40 miles south of the Gaud-i-Zirréh. It rises abruptly out of the plain with bare precipitous slopes and is conical in form. It makes an excellent land mark and can be seen for miles from most directions.

Nildik Koh. Nildik Koh is a solitary conical hill, standing up in the plain, well away from the main range of Koh-i-Sultán. The ground around its base is slightly undulating. A track from Amír Cháh to Dálbandin passes half a mile to the north.

The southern offshoot of the Chágai hills consists of several solitary rocks, the most marked of which are: the Gat-i-Hámún (3,230′) a low red hill rising with precipitous slopes on its southern face; the Lakhi hills which are three low conical hills of a reddish yellow colour; and the Koh-i-Malikgat, a solitary barren hill rising abruptly out of the plain, about 1,200′ to 1,500′ high with precipitous sides. PHYSICAL ASPECTS.

The following extract from Mr. Vredenburg's '*Geological sketch of Baluchistán*',* gives a general idea of the rivers and drainage of the District:— River System.

"All this region is an area of closed drainage, and as is usual in regions where the rainfall is of the scantiest, the hydrographic basins are very irregularly and vaguely defined. Very little water ever reaches the great lake basins or *hámúns*, most of which are now barren plains of sun-cracked alluvium. The absence of rain has not allowed the formation of any well-marked river course possessing an individuality of its own. Where the mountain ranges overlook the desert plains, innumerable dry channels follow the slopes parallel to one another. They never contain any water except for a few hours at a time in the rare event of a shower of rain; not one of them contains streams running even for part of a season such as would excavate its bed more deeply, and gradually draw towards it as tributaries the supply of the neighbouring channels. Each of these furrows runs from the hill into the plain, following an almost straight course, absolutely independently from its neighbour. After a course of 5 or 6 miles, or often much less, these parallel ravines become completely obliterated in the great desert plain.

"Where ranges are perhaps favoured with a little more rainfall, instead of being merely furrowed along their slopes by the channels above described, they are cut

* *Memoirs of the Geological Survey of India, Vol. XXXI*, part 2.

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through at intervals by deeper channels which occasionally form narrow gorges or rifts locally called *tangi*.

"The talus of conglomerate skirting the hill ranges, and formed either by the deposits of the numerous parallel channels, or by the coalescence of a series of "fans" takes the shape of a broad inclined plain which is termed the "*dámán*" that is the skirt of the mountain. Owing to the absence of any powerful drainage, these deposits attain a considerable size, and "*dámán*" reaches proportions almost comparable to those of the mountain whose débris have formed it, reaching higher and higher upon its slopes. The gradient of these taluses is so low that the eye can hardly realize the great height which they reach up the mountain slopes, and this explains the dwarfed appearance of many of the hill ranges notwithstanding their considerable altitude. This great compound talus or "*dámán*" formed as it is by a number of overlapping taluses and cones of defection, is extremely variable in its composition, coarse conglomerates and finer deposits alternating in a very irregular manner.

"Occasionally an unusually heavy shower will cause a flood carrying many of the boulders into the plain below. These floods which no doubt were more frequent in former times, have spread the pebbles over large areas in the desert, giving rise to the stony plains known by the name of "*dasht*." The outer surface of nearly all the pebbles is coloured black through the oxidation of iron compound; this dark tinge still further increases the desolate appearance of these dreary plains.

"Even in places where not infrequently to this day after an unusually heavy shower large bodies of water do reach the plain without sinking into the ground or being evaporated, the water does not gather sufficient strength to give rise to a definite channel, except in a very few cases where a stream whose head waters drain a considerable mountainous region has preserved sufficient importance to excavate a

channel through the plain. Such exceptional cases are those of the Lora which drains a large area of high ground in the neighbourhood of Quetta, and whose course can be followed up to the great dried up lake called after its name, the Lora Hámún." PHYSICAL ASPECTS.

The Khaisár or Jo-i-Nushki is the only river in the district with a perennial flow of water. It collects the drainage of the western Shorarúd and the Kishingi valley, and its chief tributaries are the Singbur, the Galangúr and the Ghori channels. In winter the width of the stream is about 15 to 20 feet and the depth from six inches to a foot. In summer it is considerably diminished, and in years of exceptional drought the water does not reach the Nushki plain. The bottom is a firm slaty gravel. In winter, floods sometimes fill the whole bed, and the road is impassable, but seldom for more than twenty-four hours. The Khaisár river.

After leaving Kishingi, the Khaisár runs in a westerly direction through a very narrow and winding valley or succession of defiles, in places densely wooded with tamarisk, and emerges into the Nushki plain a few miles south of Rahmán Khán Kila. Beyond Nushki its course proceeds in a south westerly direction until it terminates in the sands known as the Sultán Rég west of the Lághar Koh. The perennial water of the stream irrigates the lands in the neighbourhood of Nushki, the flood water only reaching the large area of alluvial plains around Mal.

The Pishín Lora, known in Nushki as the Bur *nullah*, has its source in the western slopes of the Kand mountains and is formed by the junction of a number of torrents descending from the north and west. The Lora river.

The general direction of the river is south-west, and after passing through the Pishín District and the Shoráwak territory of Afghánistán, the main channel emerges into the Dák plains of Nushki near Bulandwál (boundary pillar No. CLII). There is no permanent water in the

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river bed after it leaves Shoráwak. The tributary Dori, after various meanderings among the sand hills west of the Shoráwak plain, also rejoins the main river about 8 miles south-west of Said Bus. Notwithstanding this, the channel of the Lora is henceforward much smaller than it is in Shoráwak, and its course is not unfrequently changed after heavy floods. The great amount of silt brought down by the river accounts for the filling up of existing channels and the consequent formation of new ones. It is by reason of these changes that the river is unable to excavate for itself the enormous bed which it possesses higher up, and in big floods the water not only completely fills the channel but overflows the Dák, forming several new courses for itself. The various channels of the Lora, old and new, are thickly grown with tamarisk, while brushwood and coarse grass cover some parts of the Dák.

From Rahmán Khán's fort the river bed makes a westerly bend of several miles before resuming its south-westerly direction. At Landi, about 22 miles west-south-west of Rahmán Khán Kila, it is crossed by the *káfila* track to Garmsél. After this point it runs south-west and terminates in the Lora Hámún, about 107 miles by road from Rahmán Khán Kila.

The length of the Lora from the confluence of the streams to the Hámún is about 220 miles, and if the Surkháb be added, the total length amounts to about 270 miles. Its fall appears to be about 20 feet in the mile in the plains and 25 feet a mile in the defiles. It is not every year that the Dák is flooded. Floods almost invariably occur in the winter months, and it is very rare for the river to fill in summer.

Owing to the large area drained by the Lora and its tributaries, the winter floods are sometimes very heavy and descend with great rapidity and violence, but they run down as rapidly as they rise. Water is generally found in

pools in the river bed in winter after the floods and in the spring. It is invariably muddy and contains considerable deposits of red clay and salts.

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The Gurang and Kulao torrents.

The Gurang and Kulao hill torrents, which flow from Shoráwak and, joining at Band Amírzai, irrigate the Lidi Amírzai and Sangén lands, are also absorbed in the Lora Hamún.

The Bulo river.

The Bulo river rises in the Chágai hills on the southern slopes of Saruma near the Rahibo pass. It is formed by the junction of the Kushtagán, Gargorok and Talarán hill torrents, and in its upper reaches is known as the Talarán. Passing west of the Kasánén Chapar it divides the Chapar Range and finally loses itself in the Dálbandin plains. A small intermittent stream is found in the upper portion of the Talarán, but there is no water in the lower parts except after rain. The floods irrigate a portion of the Dálbandin plain.

The Morjén river.

The Morjén, which rises in the Dálbandin hills, is sometimes considered to be the continuation of the Bulo river. After receiving the drainage of the Gat-i-Barot and the hills to the north, the Morjén flows into the Morjén Hámún. The overflow from this *hámún* escapes by the Mashkai river into the Hámún-i-Máshkél. Its bed is dry except when in flood.

Hill torrents.

The other principal hill torrents which rise in the Chágai hills are (1) the Girdi which crosses the Duganán plain; (2) the Chahilgazi which rises near Ziárat Sháh Umar and the flood water of which irrigates the Dasht-i-Gorán; (3) the Gazén which drains the southern slopes of Malik Teznán; (4) the Mazan Nuhli Rod which passes Mérui; and the Karodak, Diwánag and Garri *nullahs*. All these *nullahs* are dry except in times of flood.

The Tahláb river.

On the west the principal river of importance is the Tahláb. It flows into the Máshkél Hámún through a wide delta thickly wooded with large tamarisk bushes. There is some good water at its source south-east of the

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Duzdáp plain which soon disappears, to reappear for a short distance at the junction of the Mírjáwa river. It is again dry until within 20 miles of its mouth, when a series of deep lagoons and stretches of running water occur for several miles. Its delta is usually dry, but the water is close to the surface. In its course it receives the drainage from the Persian hills, its chief tributaries being the Kaur-i-Khán rising on the north side of the Bed pass, the Dar-i-Giában rising on the south side of the Béd pass, the Mírjáwa river, the Andai, the Garo, the Miraka and the Durbkan, in all of which there is either running water or water near the surface. The tributaries from the east are small and only contain water after rain.

The general direction of the Tahláb river is south-east and its total length is about 150 miles. The name Tahláb however, is only applied to that section of the river between Nodo, i. e., two marches south of Mírjáwa and the Hámún Máshkél.

The boundary between Baluchistán and Persia runs for nearly 90 miles along its banks. The best road from Máshkél to Seistán follows the west bank of this river.

Mírjáwa river.

The following description of this river is given by Major Benn, C.I.E :—

"The Mírjáwa river has its source in the Kunrod spring about 2 miles north of Ládis. From its source until it reaches a point about 20 miles south-east of Mírjáwa, when it becomes the Rég-i-Malik, it is known generally as the Mírjáwa river though it changes its name according to the locality through which it passes. Thus from Kunrod to Bangan (1½ miles) it is called the Bangan; from Bangan via Ládis to Padaha (6 miles) it is called the Ládis river, at Padaha for few hundred yards it is the Padaha; and thence for a distance of nearly 35 miles until it becomes the Rég-i-Malik it is known as the Mírjáwa river. It will, therefore, be seen that, with the exception of about 8 miles of its course, the water is

known as the Mírjáwa water. PHYSICAL ASPECTS.

"It has a powerful flow throughout, which seems capable of considerable development. At present it irrigates a few scanty plots of cultivation at Barziar, Bangan, Ládis, Padaha and Mírjáwa after which it runs to waste in the sandy *nulla* bed, a little below New Mírjáwa. Before reaching the plain, about 8 miles below Ládis, it runs between precipitous banks 50 to 100 feet high, and the river bed is often 50 yards wide. The track from Mírjáwa to Ládis crosses the Mírjáwa river diagonally about 4 miles from the former, running along the river bed which is here 50 yards wide. It then skirts the right bank passing the Padaha cultivation at 8 miles and reaching Ládis at 12 miles.

"The spring at Kunrod which forms the head of the Mírjáwa river is in the midst of a patch of dense tamarisk jungle, and the flow of water from the outset is a vigorous one."

Hámúns. Owing to the peculiar formation of the country, the drainage finds no outlet to the sea, but, on arrival at low depressions of the ground which are surrounded on all sides by somewhat higher levels, forms shallow lakes or morasses to which the generic term of *hámúns* or 'expanses' is applied. These *hámúns* are converted alternatively into lakes, swamps or dry land according to the season of the year and the extent of the winter floods. In the north-eastern portion of the District, the smaller depressed areas are called *náwars*, in which the rain water collects and remains for some time, and which are, in many parts, the only water supply of the country. In the south, the lesser *hámúns* are known as *danns*.

The principal *hámúns* connected with the District are the Lora Hámún, the Hámún-i-Máshkél and the Gaud-i-Zirréh. The first named is of a considerably higher altitude than the Hámún-i-Máshkél.

Lora Hámún. The Lora Hámún is situated in the Chágai district

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between 29° 8′ to 29° 37′ N, and 64° 44′ to 64° 59′ E, and is about 38 miles in length and has an average breadth of 6 miles. It lies 3 miles due east of the village of Chágai and receives the spill of the Pishín Lora, which gives it its name. Unlike the more celebrated Hámún of the Helmand in Seistán, it is not a marshy lake, but rather a saline plain, sometimes covered with water but more often dry. In ordinary seasons it is usually covered with a shallow sheet of water for about three month in the winter, for a month after this it is impassable, but for the remainder of the year it presents the appearance of a bare plain of sun baked mud of a pale yellow colour with great patches of saline efflorescence. It is destitute of vegetation except in the immediate vicinity of the shore lines, where a few stunted tamarisks are to be found. On the western border is a mass of coarse rank grass locally known as *drub* which is used for feeding cattle. In the centre of the plain are small islands formed by hills of ancient volcanic rocks and limestone of the "flysch" period surrounded on all sides by pale yellow silt. From the peculiar features presented by these hills Mr. Vredenburg infers that in former times there was a large sheet of water, the surface of which rose to a height of 50 feet or more above the level of the dried-up lake, and that the Lora Hámún covered an area three or four times as extensive as the plain which now bear its name.

Hámun-i-Máshkél.

This *hámún* which is a large lake swamp with an area of about 3,500 square miles, forms a portion of the southern boundary line between the District and Khárán. It lies between the 28th and 29th degrees of latitude and extends from long. 62° 36′ E to long. 63° 27′ E. It belongs more properly to Khárán and a detailed description of it is given in the Gazetteer of that state.

Gaud-i-Zirréh.

The Gaud-i-Zirréh lies in Afghán territory to the west of Koh-i-Malik Siáh and north of Amír Cháh. It is a large

lake of clear water, about 25 miles long and 5 miles broad, standing in the midst of a wide margin of solid salt. The altitude is about 1,510 feet and the Shela river which drains the overflow of the Seistán *hámún* appears to be the only source of its water; all the other drainage, which would naturally flow into it from the mountain ranges on the south, being intercepted by wide barriers of sand. The water is salt and undrinkable, and the whole country in the neighourhood is a desert waste. PHYSICAL ASPECTS.

Náwars. There are several well khown *náwars* in the north-eastern portion of the District between the Dák plain and Mal, the most important of which are the Zangi, Alam Khán, Sardár Muhammad Ali, Topu, Tália, Dur Khán, Lala, Murád, Muhabbat, Sáhibzáda and Fatéh Hán *náwars*. The smaller of these depressions only contain water for a few months in the year, while others like the Zangi Náwar, which has an exceptionally favourable water suppply, have a perennial sheet of water. They are often surrounded by a cultivated oasis, and, in many parts, form the only supply of water for the nomads and their flocks. Many are surrounded by large tamarisk trees and an undergrowth of bushes. In addition to those already named, are the Borkho *náwar* near the Jamáldíni village, which has a permanent supply but the water of which is salt and undrinkable; and the Zahro *náwar* on the boundary between Chágai and Nushki 6 miles south of the Afghán border, which has a lake of excellent water 2 miles in length and 50 feet in depth.

Geology. The Chágai District coincides with the region usually spoken of as the Nushki Desert, which contains an exceptionally fine display of characteristic desert formations, such as the dried-up beds of salt-lakes surrounded by successive tiers of shingle terraces, the level flats of dried mud called "*pat*," the plains strewn with pebbles called "*dasht*" the gigantic talus or "*dáman*" which half buries

PHYSICAL ASPECTS. the straggling hill ranges, and finally the gradual accumulation of wind-borne sand. The hill ranges contain an interesting series of rocks in which jurassic, hippuritic, *Cardita beaumonti* beds (uppermost cretaceous or lowermost eocene), middle eocene (Khojak shales, Gházij and Spíntangi) upper miocene (Siwálik) strata have been recognised. There is a large display of volcanic rocks of the Deccan trap period. Great intrusive masses of diorite, augite-syenite, granite, and various porphyries of the upper eocene age constitute most of the highest peaks. The Koh-i-Sultán and a number of minor cones are sub-recent volcanoes. Lead, copper and iron ores, sulphur, alunogen and various ornamental stones occur abundantly, but owing to the inaccessibility of the region and the absence of food-supplies and drinking water, they are of no industrial value.

An illustrated and detailed description of the District is given in the "Geological Sketch of the Baluchistán Desert," (*Memoirs of the Geological Survey of India*, Volume XXXI, part 2).*

Botany. An account of the botany of the District, which has been extracted from the *Botany of the Afghán Delimitation Commission*, will be found in appendix II.

Fauna. A detailed account of the fauna of the District is given in *The Zoology of the Afghán Delimitation Commission.*† The wild animals of the District are much the same as those found in other parts of the highlands of Baluchistán, and include the wolf (*kharma*), the jackal (*tola*), the fox (*shok*) and the hare, all of which are common. Two kinds of ravine deer (*khazam*), known as the *sohr ask* and *sufaid ask*, are found in the plains of Chágai and in the Dák and Mal lands near Nushki. Hyenas (*charkh*)

*The Editor is indebted for the above account to Mr. E. Vredenbury, Deputy Superintendent, Geological Survey of India.

†*Transactions of the Linnean Society of London*, Second series, Zoology, Vol. V, part III (London 1889).

frequent the Sheikh Husain, Koti and Jorkén hills, and the leopard is also found occasionally in these localities and in the Chágai hills. The badger is met with in the Sheikh Husain hills. Ibex and oorial are also reported to be plentiful in the Ráskoh and Chágai hills. The wild ass is to be seen in some numbers near the Hámún-i-Máshkél and the country between the Kacha Koh and the Gaud-i-Zirréh.

Birds.

Vultures, kites, hawks and ravens are common all over the District. Sandgrouse are plentiful and breed in the country. Chikor and sísi are also found in the Chagái and Sarlat hills. In the winter, duck and water-fowl of all descriptions collect in large numbers on the *hámúns* and *náwars.* Both black (*siáh sína*) and grey (*sarpuk*) partridges and *talúr* are also found in the District.

A list of the insect fauna is given in Volume V, part III of the "*Transactions of the Linnean Society of London.*"

Writing of snakes, Captain (now Sir Henry) McMahon says:* "Snakes and lizards you see everywhere, and a more snaky country than this is in the hot weather, it is hard to imagine. There was one sound, however, that did sometimes break the dead stillness of a night march, and that in an unpleasant manner—that was the deep hiss of the horned viper. This pleasing reptile, which we came across many times, lies during the day with only its head showing above the sand, and it is almost impossible to distinguish it from the sand. At night, however, it used to sit up and hiss loudly whenever any one approached it. Some of our party had very narrow escapes from venomous snakes, but fortunately we had no casualties from that cause. * * * * * * On another occasion, one early morning a very fine specimen of a snake—*Echis carinata* came out of a small hole in the ground over which I had just been sleeping."

***The Southern Borderlands of Afghánistán,* by Capt. A. H. McMahon in the Geographical Journal for April 1897, (Vol. IX, No. 4.)

CLIMATE, TEMPERATURE AND RAINFALL. The seasons in the plains are unequally distributed. There is a maximum of hot weather and a minimum of cold; both are severe of their kind, and the transition from the one to the other is short and sudden. The winter (*chilla* or *sélt*) commences in December and ends in February. Except in unusually severe winters, snow does not fall during the season on the plain, but the nights are cold and raw, and a bitter, keen wind usually blows across the deserts. The season is, however, not unhealthy. The spring (*hatam*) is a very short season commencing with March and ending about the middle of the following month. Slight rains occur during this period, and the alternations between the temperature of the nights and days are sudden and great. The country looks at its best during this season, and the plains and sand dunes are covered with green grass and profuse vegetation. The summer (*tírma* or *Ah Sánwanr*) is the longest of the seasons, and lasts from the middle of April to October. During this period the heat is excessive, and the atmosphere oppressive and relaxing. Rain seldom falls in the plain, but sand storms are of frequent occurrence, and in the western portion of the District, a persistent north-west wind blows over the country. Owing to the evaporation of the water in the *hámúns* and *náwars* which become the breeding grounds of flies and mosquitoes, malaria and other fevers are very rife, and the unhealthy season extends well into the autum. The prevalence of fever and the bad quality of the drinking water has left a noticeable impression upon the natives of the country, who generally have a weak and anæmic look. Autumn (*méshchen* or *sohél*) may be said to last from October to December. It is not a healthy season and the days are hot and the nights cold. The greatest heat during the summer months is encountered in the low lying plains along the southern border of the Kacha Koh, Koh-i-Sultán and Malik Náru hills. The temperature of the plains north of these ranges is somewhat less, owing partly

to their greater elevation, and partly to the fact that the sands of the Régistán do not retain the heat like the alluvial soil of the southern wastes. The days are extremely oppressive, but it is said that even during the hottest weather comparatively cool nights are experienced in the sandy deserts.

CLIMATE. TEMPERATURE AND RAINFALL.

The Afghán-Baloch Boundary Commission which reached Nushki on the 22nd of May, 1896, reported that the heat during the previous ten days of their march had been very severe, running up to 115° in the tents. In May 1897 the temperature at Panihán, west of Dálbandin, is reported to have reached 127° during the day in a double-fly 'hill tent.'

The figures below show the average temperature (in the shade) during the months of January, May, July and November 1904 at Nushki, the only place in the District where any regular record is kept.

	8 A. M.	4 P. M.
January ...	... 52·5	54·9
May ...	... 85·4	90·5
July ...	... 90·3	97·3
November	... 70·5	74·2

Rain and snowfall.

Like other parts of Baluchistán the District lies outside the sphere of the monsoon currents and the rainfall is irregular and scanty. In winter when most rain falls, the District is affected by storms which originate in the Persian plateau, but their number and character vary largely from year to year. The only station where the rainfall is recorded is Nushki, and the average figures for the four years from 1901 to 1904 are given in table I Vol. B. The data may be considered as typical for the plains of the District. The average annual rainfall for these four years was about 4½ inches, and the largest amount occurred between the months of October and March, when an average of 3·48 inches was recorded. In the spring and summer very little rain falls. The average

CLIMATE, TEMPERATURE AND RAINFALL.

fall in the Sarlat hills is somewhat greater, but no reliable figures are available. It is considered by the local people that Chágai and the surrounding country is subject to periodical cycles of droughts, and that droughts supervene after a series of good years to disappear once more and make way for another series of favourable seasons. Captain Webb Ware remarked in 1901 that his experience of the District tended to establish the correctness of this theory.

Winds.

The western half of the District is exposed to the effects of the *bád-i-sad-o-bist-roz* (or wind of 120 days) which blows steadily from a north-westerly direction. It commences very regularly after the vernal equinox, and continues more or less constantly night and day from about the 15th of May to the middle of September. The following account is given by Mr. T. O. Hughes :—"The force of this wind is felt from Chah Muhammad Raza to Kundi on the trade route. At Mashki Cháh the wind blows with particular force and between this place and Rég-i-Wakáb a remarkable line of horse-shoe sandhills lying exactly one behind the other has been formed by its means, from Kundi eastwards the force of the wind gradually decreases and it does not appear to blow with much regularity east of Cháh Sandán. The phenomenon is peculiar. It in no way resembles an Indian dust storm but is a movement of the atmosphere near the earth. At this height the sky over-head is clear and no clouds appear. The direction is about ten degrees west of north and after blowing for some twelve hours it decreases as the sun sets when there is sometimes a calm, but always a decrease in force. In the night it recommences but falls in the early morning when light airs frequently occur. As the wind drops, the atmosphere clears and the wind-borne dust and gravel quickly disappear. The wind is never hot and is undoubtedly healthy. In houses it is not severely felt and it enables the temperature to be kept low by artificial means. Few calm days occur during the four

months commencing with May that it continues, but towards the beginning and end of the period intervals of calm weather occur." CLIMATE, TEMPERATURE AND RAINFALL.

In the eastern portion of the District this wind does not blow with the same regularity or force, but the north westerly direction is, nevertheless, the prevailing one during the summer months. The other winds are, the *sargwat* or *kandahári*, a northerly wind which blows during the cold weather; the *gorij*, a cold westerly wind which also blows in winter, bringing rain and snow; the *ergwat* or *khárâni* which blows from the south in the summer, and is an extremely hot and oppressive wind, and one which is said to propagate flies and insects; and the *khaisári* which comes from the east over the Sarlat Range, and blows in the mornings during both the summer and winter months.

Earthquakes. Slight shocks of earthquakes are not uncommon, but in recent years no serious damage appears to have been caused. A well defined earthquake crack or line of indentation which was discovered by Captain McMahon, while demarcating the Baloch Afghán frontier, runs from Chaman to Nushki along the slopes of the Khwája Amrán and Sarlat ranges for a distance of 120 miles. It cannot be traced beyond Nushki. The crack is said to be a continuation of the great Boundary Fault of the Himálayas; and all the rocks on the east appear to be sedimentary, while those on the west are igneous.

HISTORY. Little is known of the ancient history of Chágai. There is a complete absence of all records, and the local traditions are vague and unreliable. The earliest monuments are the ruins of terraced embankments or 'Gaurbastas' which are found at the foot of the Ráskoh hills and which, like similar remains in the lower parts of Baluchistán, are ascribed to the Gabrs or fire-worshippers. The next traces of ancient history are the square shaped tombs, met with in the western portion of the District, which are attributed by local tradition to the Kaiánis of the Achaemenian

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dynasty of Persia. The remains of cupolas, ruined forts and *kárézes* which are found in different parts of the District, are usually assigned to the Arabs, and may, perhaps, be correctly said to date from the "Arab period" during which the neighbouring province of Seistán attained the climax of its prosperity. They are also, sometimes, attributed to the Mughals, and in any case indicate the presence of a higher civilization than is now found among the Baloch and Bráhui inhabitants of the country. The waves of conquest and reconquest which passed over its neighbours do not seem to have left much permanent mark on the country, and it is possible that Chágai, secure in the shelter of its deserts and possessing little to tempt the adventurous, did not play a very important part in those troublous times.

The Mongols.

There are traditions of invasions from the north and north-west, but these are very vague, and the invaders are always said to have been the Mongols (known to the people of the country as the Mughals). About 1223 A. D. a Mongol expedition under Chagatái, the son of Chingiz Khán, is said to have penetrated as far as Makrán; and in 1383 Mirán Sháh, the son of Tímúr, led another expedition into Keren (Khárán).* It is not known if these invasions actually passed through Chágai, but their influence must have made itself felt throughout the country.

Immigration of the Baloch.

Hereafter the history of the country is chiefly concerned with the Baloch, who, according to their own traditions, migrated from Aleppo. They assert that their ancestors found the country depopulated and a desert waste. The district, at this time, probably formed a part of Kandahár and shared in the fluctuations of its possession, but the normal condition of the Baloch seems to have been one of semi-independence. They appear to have been firmly established at the beginning of the sixteenth century as is

* Major David Price. *Retrospect of Muhammadan History*, Vol. III, part I, p. 42, London 1820.

HISTORY.

shown by the following extract taken from the narrative of the flight of Humáyún, the Mughal, along the valley of the Helmand to Seistán in 1543.

"One night, after a long march, the barking of a dog was heard. The Emperor (Humáyún) had hardly time to observe that some habitations must be at hand, when a party of the Baloch met and stopped them. They spoke in their own language, which was not understood, but fortunately one of the ladies, who was with the Emperor's suite was herself a Baloch, the wife of an officer in his service. She was employed to interpret, and it appeared that they were followers of Malek Khati, a Baloch chief, whom Abulfazl styles the Captain-General of the banditti of the desert. Their leader being at that moment absent, his people, on finding that it was the Emperor, insisted that the little troop should not pass onward without their master's leave. The Emperor was obliged to comply and entering the fort, the free-booters salaamed to him respectfully, spread a carpet on which he and Hamída Begum (mother of the great Akbar) sat down and supplied the wants of the party with all the hospitality of the desert. When day began to dawn, as the Emperor was engaged in his morning prayers Malek Khati, who had been sent for, returned.

"The Emperor's peaceable entrance into the fort, which gave him the character of a guest, had roused the robber's sense of honour. Saluting the Emperor, and making the usual polite inquiries after his health, the chief informed him, that three days before an order from Kámrán Mirza had reached him commanding him not, on any account, to suffer the Emperor Humáyún to pass that way, but to seize and make him a prisoner. "But" added he, "now that your Majesty has visited me, on my head and eyes be it. Yet it is better that you should ride on and I will myself conduct you to the borders."

The Safavid dynasty.

From 1556 to 1595 the country formed part of Kandahár under the Safavid dynasty. It then fell into the hands

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of the Mughals of Delhi, and on the decay of their power the eastern portion or Nushki was annexed by Mír Abdulla Khán of Kalát, the greatest conqueror of the Bráhui dynasty, (1716—1730).

The Ghilzai dynasty of Kandahár.

About 1733 Shér Khán, the Baloch chief or "hákim of Nushki," submitted to Mír Hussein, the second son of Mír Wais and founder of the Ghilzai dynasty of Kandahár, who had retaken Pishín and compelled the Bráhuis to tender their allegiance.

Nádir Sháh.

A few years later, Nádir Sháh sent an expedition against Nushki under Muhammad Ali Bég, who inflicted a severe defeat on the Baloch near Shoráwak, where the latter appears to have lost nearly 700 killed besides wounded and prisoners. Muhammad Ali then pressed on against Shér Khán who was surprised "between Tsagai (Chágai) and Nushki," and slain with the greater part of his followers. In 1740, Nádir Sháh conferred Nushki as a fief on the chief of Khárán, but it was retaken by Nasír Khán the Great (1750—1793) and became a *niábat* of the Kalát State. About the same time Chágai with Kandahár seems to have passed into the possession of the Durráni rulers of Afghánistán.

Tribes of the District.

The earliest Baloch settlers in the Nushki district were the Mándais, who were followed by the Jamáldíni and Bádíni Rakhshánis from Khárán and later by the Zagar Méngal Bráhuis from the Sarawán country of Kalát (about 1720 A. D). In Chágai, the first comers appear to have been the Balánosh Saiads, who were subsequently dispossessed by the Sanjráni Baloch, the present owners of the country. The details of the history of these tribes is given in the section on **Population**.

Nasír Khán I.

Nasír Khán the Great passed through Nushki in about 1770 on his way home from Meshed after having accompanied Ahmad Sháh Abdáli on his expedition to Persia. It is said that the Bráhui King was so pleased with the generous treatment accorded to his army by the inhabi-

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tants that he bestowed on them the name of *dilkushá* or "the open hearted." A stone enclosure near Kishingi on the road from Nushki still marks the place where Nasír Khán halted to offer thanks for the safe return of his army.

Pottinger.

In 1810 in the reign of his successor Mír Mahmúd Khán I, Pottinger and Christie visited the District, and the former has left a full record of his experiences.* Mír Mahmúd was not a strong ruler, and Pottinger found that the country was greatly impoverished and that highway robberies were of common occurrence. The Bráhuis, however, seem to have been treated with consideration and the Khán's authority was respected. The following description is given of the condition of Nushki at that time:—

"I was here in the confines of the District of Nooshky, with respect to which little remains to be added. I have already stated that it is peopled by a branch of the Nharve class of Baloochees, named the Rukhshánees. The sirdár or chief is Eidal Khán, a man about sixty years of age. * * * The only source of exclusive revenue that he seems to possess is a water mill turned by the river Kysur and that must always be a very precarious one, as it often fails from a want of water. The Toomun of Nooshky comprised two hundred *ghedáns*. * * * There are six Hindu shopkeepers in the Toomun, who have ventured to bring their wives and children. * * * When the crops fail at Nooshky, which is the case nine years out of ten, they depend on Gurmsyle and Kutch Gundáva for grain and in fact bring more or less every year from those places."

Amír Abdur Rahmán Khán.

The next traveller of note was Amír Abdur Rahmán Khán, who passed through the country after his defeat by Amír Shér Ali Khán in the Hazára hills in 1869. He has

* Henry Pottinger. *Travels in Baluchistán and Sinde* 1816.

HISTORY. left the following interesting record of his journey*:—

"On our way to Nushki rain fell heavily all the day and the wind was very cold. We got soaked and our hands and feet were nearly frozen. We arrived after many difficulties, but the people received us very kindly. The next day we departed, and our march lay through a sandy desert where there was no water. * * * * By God's help it rained each day, which gave us sufficient water for our needs. At the end of the tenth day we arrived in sight of Chágai! The road was entirely broken up by the rain, and we were obliged to dismount, and lead our horses in mud knee-deep. At the end of our march both men and horses were well nigh exhausted. I myself cooked some meat and distributed it among the men who were almost fainting; the horses meantime lay down, unable to rise again. Only one horse (my own Arab, being a foal from my grandfather's stable) remained standing.

"For two days we were in the utmost straits, but the third day we entered Chágai. We were surprised that the Khán of the village would not welcome us. We remained there some time and after a fortnight a servant came to my uncle with the tidings that the Khán and Mír asked permission to pay their respects to him. I asked why they had not done so before, and was told that the reason was that all their subjects had gone to the desert to graze their horses. They were now returned and 500 had collected to salaam us. On our acceding to their request, the Khán came out of the fort on foot, with 500 followers behind in a single line and preceding him were two dancing boys of nine and twelve, who looked quite unlike human specimens, having no clothing save one small loin cloth, and matted hair which had never seen soap and water. There was one band of music and this was our grand

* *The Life of Abdur Rahmán, Amír of Afghanistán*, by Sultán Muhammad Khán, London 1900.

HISTORY.

reception, the preparation for which had taken 15 days! We stayed at Chágai 25 days, during which time our horses had grown quite fat having plenty of grass and hay."

Chágai.

The visit of Amír Abdur Rahmán does not appear to have been an auspicious one for the Sanjránis, and, when the question of arranging for the march of the Afghán Boundary Commission to the Helmand (1884) indirectly raised the question of the possession of Chágai, the Amír settled the point by occupying the fort in June 1886 with an Afghán garrison. Sardár Ali Khán, the present Chágai Chief (1905), fled to Nushki and Sardár Shér Muhammad of the Bandar-i-Kamál Khán branch of the family was appointed chief in his stead. In December 1889, Major Gaisford, the Political Agent of Quetta, was sent to Chágai to call upon the Afgháns to evacuate the fort but this policy was not followed up, and in May 1892, under the orders of the Amír, the Governor of Farrah marched on Chágai with a considerable force and seized 86 Sanjránis, men, women and children, and marched them off as prisoners. On their way from Kandahár to Kábul a number of men escaped, and returning to Chágai, surprised the fort and killed the Afghán Commander, Shér Muhammad. In reprisal, some forty more Sanjránis were seized and sent to Kábul as prisoners. The boundary settlement effected in 1896 left Chágai within British territory, and the fort was handed over by the Afghán garrison on the 19th of May of that year. The prisoners, of whom some twenty five alone survived were also released.

Sir Charles MacGregor.

Early in 1877, MacGregor and Lockwood visited the western Sanjráni country, making their way from the Máshkél Hámún to the Gaud-i-Zirréh. They found this part of the country very insecure, infested with robbers and subject to raids by the Dámánis and other tribes on the Persian border. At Shandak, MacGregor and

HISTORY.

Lockwood parted company, the former taking the southern route through Khárán to Jhalawán and the latter making his way to the Sarawán country through Chágai and Nushki. Lockwood reached Nushki on the 15th of March and has described the country as being "inhabited by Rakhshánis and Méngals who are always fighting." The chief of the Zagar Méngals at this time was Rahmán Khán whose daughter was married to the ex-Khán Mír Khudádad Khán and is the mother of Mír Mahmúd Khán, the reigning Khán of Kalát (1906). Rahman Khán was one of the chiefs that attended the Darbár held by Sir Robert Sandeman at Mastung on the 13th of July 1876, which was the scene of the memorable settlement effected between the Khán and Bráhui chiefs.

Perso Baloch and Afghán-Baloch Boundary Commissions.

The demarcation of the Persian boundary from Kúhak to Koh-i-Malik Siáh was finished on the 24th of March 1896 by the Perso-Baloch Commission, of which Colonel (now Sir Thomas) Holdich was the British Commissioner. And in the May of the same year the Afghán-Baloch boundary was finally completed as far as Koh-i-Malik Siáh by Captain (now Sir Henry) McMahon.

Formation of the District.

By the decision of the latter, the western Sanjráni country came within the British sphere of influence, and in November 1896 was placed under the charge of Captain Webb Ware who was appointed Assistant Political Agent of Chágai, under the direct orders of the Agent to the Governor General. Nushki itself continued to be a *niábat* of the Kalát State, but as the condition of affairs was unsatisfactory and the Kháns *náib* was found incapable of coping with the disturbances on the borders, the *niábat* was leased from His Highness the Khán on an annual quit rent of Rs. 9,000, the management of the District being handed over on the 1st of July 1899 to the Government, "absolutely and with all the rights, privileges, as well as full and exclusive revenue, civil and criminal jurisdiction including all rights to levy dues and tolls."

HISTORY.

The following officers have held the appointment of Political Assistant since November 1896 :—

List of Assistant Political Agents.

Lieut./Captain F. C. Webb Ware	...	November 15, 1896 to August 10, 1900.
Captain M. A. Tighe, (in addition to his duties as Political Agent, Southern Baluchistan)	...	to January 10, 1901.
Captain F. C. Webb Ware	...	to September 14, 1903.
Captain A. D. Macpherson	...	to January 7, 1904.
Major A. McConaghey	...	to September 14, 1904.
Captain A. B. Dew, (in addition to his duties as Assistant Political Agent, Sibi)	... ...	to November 2, 1904.
Mr. T. O. Hughes, (in addition to his duties as Assistant District Superintendent Police),		to November 9, 1904.
Major R. E. Berkeley ...	...	to November 11, 1904.
Mr. T. O. Hughes (in addition to his duties as Assistant District Superintendent Police),		to February 5, 1905.
Captain L. Haworth ...	...	to February 21, 1905.
Major R. A. E. Benn ...	...	to March 31, 1905.

Modern incidents.

Since the formation of the District into a single charge, the chief administrative changes have been the establishment of a tahsíl at Nushki in 1899 and of a sub-tahsíl at Dalbandin in 1901. In 1899 an Assistant District Superintendent of Police was appointed and was placed in direct charge of the western Sanjráni Tract.

The chief features have been the opening out of the Trade Route between Quetta and Seistán, and the construction of the Quetta-Nushki Branch of the North Western Railway between Spézand and Nushki.

The Seistán Arbitration Commission under the charge of Colonel (now Sir Henry) McMahon passed through the District in January 1903 on its way to the Helmand via Káni and Galacháh, and returned along the Trade Route in May 1905 after an absence of over two years.

ARCHAEOLOGY.

The only features of archaeological interest in the District are the remains of ancient forts, *kárézes* and dams or cupolas. These have no local history, and are ascribed by the inhabitants indiscriminately to either the Arabs or the Mughals. In the Chágai tahsíl there are ruins of several cupolas (*gumbaz*) in the neighbourhood of Padag and Zarála, the best known of which is the Bíbi Kapok near the Padag *thána*. These are built of burnt brick, and are probably of a Muhammadan origin.

Pottinger who visited the District in 1810 gives the following account of a cupola situated in the desert about 3 miles to the south-west of Nushki :—

" Three miles from the *Toomun* we passed a *goombuz* or cupola, which according to tradition stands near the site of an ancient town, whose inhabitants were so affluent that, as one means of disposing of their wealth, they mixed the *chunam* or cement for the erection of all their houses and edifices with milk instead of water; which flagrant instance of unnecessary and ostentatious waste so incensed the Deity, that a curse was denounced on the place, and it gradually sunk into misery and decay. At present there is no other vestige of this fabulous city than this *goombuz*, which has certainly a very singular appearance, being built in the desert a long way from the mountains, which here run off to the southward. I was not near enough to examine with precision the style of architecture (whether different from that of the present day in those countries) or the materials; but the former seems to have nothing remarkable in it, and from Moorad's account the only thing observable with regard to the latter, is the amazing hardness of the *chunam*, which he compared to marble. A short way in advance I observed some very large stones on the side of the path, at the distance of twenty or thirty yards from each other, and on asking the meaning of them, I was gravely assured, that

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they had been placed there by Roostum,* to commemorate the pace at which his favourite steed galloped. This solution, it is needless to add, I laughed at; but, for whatever purpose the stones in question may have been brought to the spot they are now at, it is clear that their transportation from the nearest mountain must have been attended with great trouble and cost; many of them are several tons weight, and six or seven yards square."

Dr. Stein, Inspector General of Education and Surveyor of Archæology, who paid a visit to Nushki in April 1905 has written† the following interesting description of some of the ancient remains to be seen in the District:—

Ancient remains at Nushki.

"The visit which I paid to Nushki, enabled me not only to form some idea of the character of the desert which hence stretches towards Seistán and the comparison of which with the deserts of Turkestán offered for me special points of interest, but to trace remains of unmistakeable antiquity at the newly developed emporium of Nushki itself. On riding up the hillock on which the Political Agent's Bungalow stands, I noticed old pottery débris and by subsequent examination found evidence of this prominent position having been occupied probably at an early period. The hillock is composed mainly of alluvial deposit, and rises about 70 feet above the bed of the Khaisár stream which washes its southern foot. Its top after having been artificially levelled some eight years ago, now measures about 140 yards from north to south with an average width of about 100 yards. Owing to its commanding height and isolated position, the hillock must have always attracted notice as a place suited for defence, and accordingly I was not surprised to find remains of old walls at several places on the south face which falls off

*The Persian hero of the celebrated poetical work *The Shah Namah* by Firdosee.

†*Report of Archaeological Survey work in the North West Frontier Province and Baluchistán*, (Peshâwar 1905), section X.

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precipitously towards the stream. The masonry which erosion of the steep slopes had laid bare, consisted of regular courses of flat slabs, unhewn but set with care, similar work is not, and probably never was, known to the Bráhuis and Baloch now sparsely inhabiting the country.

Find of ancient jars.

"On enquiry I ascertained that when the top of the hillock was being levelled for the present Bungalow, a number of round jars of a make and size no longer known had been brought to light not very deep beneath the surface. One of these jars proved to have been preserved in the fort containing the Tahsíl and to be a relic of distinct interest. It measures 2 feet 5 inches in height with a diameter of 2 feet 6 inches, where widest and is made of a hard red clay about half an inch thick. From its mouth which is about 1 foot wide, down to the line of greatest perimeter, the jar is decorated with a succession of bands painted in black colour and fairly well preserved. The band nearest to the mouth shows a plain pattern of diagonal lines between two horizontal ones, next follows one with a bold spiral scroll ornament, while below this is a band showing fishes in double row. Below these bands each of which is about 5 inches high, follows a succession of plain black stripes down to the line of greatest perimeter. It is very desirable that this interesting piece of ancient pottery be properly taken care of, and I have recommended its removal to the Quetta Museum now in course of construction. A second vase of similar material, but perfectly plain and about one foot in height, was the only other object from that find I could trace at Nushki. My enquires after old coins in the Bazar and among village headmen were unsuccessful; none appear ever to have been found in this neighbourhood. As Nushki, owing to its water supply, can never in historical times have been a locality entirely uninhabited, I can recognize in this dearth of old coins of any description only evidence of the very primitive cultural conditions which have prevailed in

great portions of Baluchistán down to our own time. As to the age of the pottery above described I cannot safely express an opinion.

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Gumbaz **near Nushki.**

"At Nushki I had touched the line of route followed by Pottinger in 1810 on his celebrated journey through Baluchistán into Persia. As, on reading its account long ago I had been struck by the description given in it of some very curious ancient structures, which Pottinger had seen at some distance south of Nushki, and which he believed to be of Zoroastrian origin, I was anxious to visit them. Locally nothing was known of such ruins, but a search for them seemed all the more justified since I succeeded in finding in the immediate vicinity of Nushki, and exactly in the position indicated by Pottinger, the remains of a *gumbaz* which Pottinger mentions in connections with the tradition of an ancient town,* and which was equally unknown to the local authorities. This ruin, called Mágul by the old Saiad guide who took me to it, proved to be situated at a distance of about 3 miles to the south-west of the modern fort of Nushki, and to consist of a narrow vaulted passage about 12 yards long, half buried under the drift sand of the surrounding desert. It is built of sun-dried bricks and surmounted by a shapeless mass of decayed masonry of the same kind. The vault being constructed on the principle of a true arch indicated the Muhammadan origin of the structure, and the remains of some old tombs to the south of it fully confirmed this conclusion. Old pottery débris strews a patch of eroded clayey ground near by. My guide did not know of the romantic legend which Pottinger had heard of the ruin, but connected it with an equally miraculous story of the escape of some holy persons who took refuge in the *gumbaz*. I have little doubt that the latter is the remains of a Muhammadan tomb, possibly of the time of 'the Arabs' to whom local tradition in this dreary region ascribes most

*See *Travels in Baluchistán*, 1816, page 123.

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traces of ancient occupation. Of the large stones which not far from this spot had been pointed out to Pottinger as marking the footprints of Rustam's steed, I could hear nothing. Have they been covered up since by the moving dunes of the desert?

Search for Pottinger's ruins on Khárán route.

The search for the more interesting ruins which Pottinger had seen on his third march south of Nushki, proved far more difficult. From certain topographical indications I concluded that on his way into Khárán he must have followed the route crossing the range of mountains south-west of Nushki by the Táfui Pass. But the country being in Pottinger's days quite as devoid of permanent habitations as it is now, and, of course, unsurveyed, his narrative does not supply such local names or other *indicia* by which his line of route or the site referred to could be fixed with precision on the modern map. Nevertheless, the close agreement of Pottinger's description with the ground seen by me on the Táfui route, as well as his mention of the Bel stream (his 'Bale') make me now feel certain that he actually travelled by this route. The information gathered from some Bráhuised Hindus coming from Khárán, the only travellers we met en route, pointed to the existence of ruined mounds near the route some miles to the north of Nauroz-Kalát. This was confirmed by what was known to some nomadic Bráhui shepherds we picked up at our second encampment near a well in the dry bed of the Bel.

Under the guidance of one of these shepherds, I proceeded on the morning of the third day to the ruined site spoken of. It proved to be situated by the left bank of the broad river bed which is formed by the junction of the Bel with the Baddo River coming from the mountains to the N. E. and known in its upper course as Liji or Chiringi. The old site known like all ruins of this region by the general term of 'Kona-shahr'; so familiar to me from Turkistán, lies about 1½ miles below the junction

just referred to, which is marked by the Ziárat of Sheikh Husain ('Shah Hasan Zt', of north-western Trans-frontier Map No. 22). It occupies the angle formed between the bed of the united Bel and Baddo rivers and a small dry *nullah* known as Toji which joins it from the N. E. The distance from Nushki which by the map as well as by an approximately accurate road estimate was shown to be about 66 miles, agreed remarkably well with Pottinger's indications; but though there were the "several large mounds of earth and stone scattered over the desert" to which his description refers, no trace could be found of the "very extraordinary tombs" of a quadrangular shape, "each surrounded by a low wall of curious open freestone work," which he mentions at a distance of about 400 yards from the western bank of the rivers."* ARCHAEOLOGY.

Very few old coins have been found in the District. A set of 99 silver coins, found in Koh-i-Taftán in Persian territory adjoining the District, was examined by Professor Rapson of the British Museum who furnished the following account in 1903:— Old coins.

"These are all coins of the successors of Alexander the Great in the East (*a*) Seleucid kings of Syria and (*b*) kings of Bactria, and later imitations of these coins made by the Scythian tribes who over-ran the ancient kingdom of Bactria. Such coins, no doubt, formed the currency of all the large districts now included under the names Afghánistán and Baluchistán during a period begining about 250 B. C. (when Diodorus revolted from the Syrian Empire under Antiochus II, and founded the kingdom of Bactria) and extending to some time probably after the Christian era. No means of determining the inferior limit of date to the coinage which was imitated from the Greeks by their Scythic conquerors, has yet been discovered; but probably it would be near the mark to say that the Greek coins (Syrian and Bactrian) circulated until about 160 B. C.,

*See *Travels in Baluchistán*, 1816, page 126.

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the date of the invasion of the Yue-chi, and that copies of these may have supplied the coinage of these lands for two hundred years or so. Such coins may well be discovered near the Koh-i-Taftán which lies on the trade-route from India to Kirmán, but it is doubtful whether they were the currency of this district. They were probably circulated in Baluchistán proper."

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Ethnographical history.

The ethnographical history of the District is involved in obscurity, and nothing of historical value is known regarding the earliest inhabitants. It would, however, appear to be certain that the Bráhui, Baloch and the few Afgháns, who now occupy the country, are of comparatively recent immigration. According to tradition the earlier inhabitants were Arabs, but although the remains of cupolas in the neighbourhood of Padag and Zarála, and the existence of certain ruined underground channels indicate the possession of a scientific skill entirely unknown to the present population, there is a complete absence of all records and no definite opinion can be expressed. In the western part of the District, the earliest immigrants of whom there is any record were the Saiads, who in their turn were supplanted by the Sanjráni Baloch. In the eastern portion of Nushki tahsíl, the first settlers are believed to have been the Mándais, who were followed by the Rakhsháni Baloch and at a later period by the Zagar Méngals. The few representatives of the Lángav and Baréch tribes, that are occasionally met with in different parts of the District, are new comers, and in the Nushki tahsíl still retain their distinctive tribal features, language and customs.

Density.

The first census of the District, the results of which have been published, was carried out in 1901; but in that year the western Sanjráni country, which comprises an approximate area of 9,407 square miles, was excluded from enumeration. The greater part of this tract is practically a desert, and is very sparsely populated. In the spring,

when grazing is abundant, the hilly tracts are frequented by nomads from the Persian and Afghán territories, who return to their homes when the pasturage is finished. In the remaining part of the District, which comprises the Chágai sub-tahsíl and the Nushki tahsíl and covers an area of about 9,485 square miles, the family system of enumeration was adopted, and the total population was computed to amount to 15,689 souls, giving an incidence of less than 2 persons to the square mile. In the Chágai sub-tahsíl, which is sparsely inhabited by a chiefly nomadic people, the incidence was 1 person for every 1½ miles, whilst Nushki, with a larger and more settled agricultural population, showed 5 persons to the square mile. POPULATION.

A detailed statement containing the principal census statistics will be found in table II, Vol. B.

Towns and villages.

In pre-British days the number of villages was smaller, the people being obliged to herd together for offensive and defensive purposes. There is now a tendency to spread out, and new hamlets and habitations are gradually springing up. In 1905 there were 40 villages in a total area of 9,485 square miles or 1 village for every 237 miles. Of these 18 were situated in the Nushki tahsíl and 22 in the Chágai sub-tahsíl. The latter, however, can scarcely be dignified by the name of villages and with the sole exception of Chágai, which may be classed as a permanent village, the remainder are temporary settlements or habitations only occupied at short periods of the year by nomads or agriculturists when pasturage or agricultural operations may require their presence. In the western Sanjráni tract there are no permanent villages, and in the whole District there is no village with a population of 1,000 souls. The important places are mentioned in the *Miniature Gazetteer* of each tahsíl.

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The villages in the Nushki tahsíl consist chiefly of *kudís* or small oven shaped huts made of wicker-work mats, or hurdles of tamarisk plastered over with mud. These are placed together without order or arrangement, and little or no attempts have been made hitherto to plant trees or gardens. In the Chágai village the houses are usually made of mud.

Villages are often named after the tribe inhabiting them, such as the Jamáldíni and Bádíni villages, and sometimes after the leading man or *malik* of the community. In the latter case the name is changed on the death of the *malik*.

Growth of population.

Previous to 1900 no enumeration of the District had ever been attempted, and the growth of the population cannot be illustrated by figures. Travellers in earlier times have recorded that the tribes were engaged in constant feuds both with their neighbours and among themselves, and as these conditions have altered it may be inferred that the population is steadily increasing.

Migration, immigration and emigrants.

Owing to the unsettled condition of the country in earlier times, and to the fact that the greater part of the District is adapted to pastoral rather than agricultural pursuits, nearly four-fifths of the population are purely nomadic in their habits. These have no fixed settlements but wander from place to place according to the season of the year in search of grazing for their flocks and camels. The movements of the different tribes are, however, generally restricted to certain defined limits.

The settled inhabitants of Nushki and Chágai also regularly desert their villages for a period of from two to three months in the early spring of each year, and move into the adjoining sand hills where good grazing is to be found. This annual migration is known locally as "*hatam khuári*."

The majority of the inhabitants do not leave the District as long as the conditions are favourable. When

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compelled to do so in years of drought and scarcity, the tribesmen of Nushki migrate temporarily to Kachhi, and those of Chágai to Khárán and Garmsél. The sections that usually migrate under these conditions are the Trásézai, Amirzai and Bájézai Méngals, and the Mardán Sháhi and other Muhammad Hasnis from Nushki, and the Músázais, and Hasanzai Méngals, and the Siáhézai and Zirkári, Kehrai and Mandazai families of the Muhammad Hasnis from Chágai. Many of the Kehrai and Siáhézai Muhammad Hasnis also migrate periodically to Khárán where they work as reapers during the harvests. Among the permanent inhabitants may be mentioned the Taldár Hindus who have settled in Nushki and gradually obtained possession of certain lands, and the Baréch Afgháns, who have migrated from the Shoráwak border and acquired settlements by *khat kashi* or purchase both in Nushki and Chágai.

The Zahrozai and Lijjai Lángavs have similarly acquired property in Nushki and Chágai.

The chief periodical immigrants into the District are the Méngals, Pírkári and Darag from Shoráwak, the Rodíni, Sarparra and Lángav from Kalát territory and the Muhammad Hasnis from Khárán. These are principally sheep or camel owners, and the period of their stay in the District and their numbers are determined by the conditions of the grazing.

Age statistics, vital statistics, infant mortality and infirmities.

No detailed record of age was attempted in 1901, and adults were merely distinguished from minors. Out of a total population of 15,689 censused in 1901, there were 8,345 adults: 4,424 males and 3,921 females. The number of children 12 years and under, was 7,344: males 3,835, and females 3,509.

Vital statistics are not recorded in any place in the District. In 1905, a summary enquiry regarding the birth and death rate was made by the Gazetteer staff in a few selected villages in each circle, and the result indicated

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4·1 per cent. of births and 1·2 per cent. of deaths among infants for the total population during the preceding twelve months. A similar enquiry made in four villages in the Nushki tahsíl showed the percentage of deaths to be about 2·7, the proportion between deaths among adults and infants being 3 to 7. Longevity among the indigenous population appears to be infrequent owing to the great variations of temperature, constant exposure, bad water and poor nutrition.

Infirmities were not recorded in the course of the census in 1901, but a summary enquiry made in 1905 in 9 villages in the District with an approximate population of 2,375 souls, showed 24 afflicted persons, 19 males and 5 females, of whom 12 were deaf and dumb, 9 blind and 3 maimed. There were no cases of leprosy, which does not seem to be indigenous in the country.

Comparative numbers of sexes, and social condition.

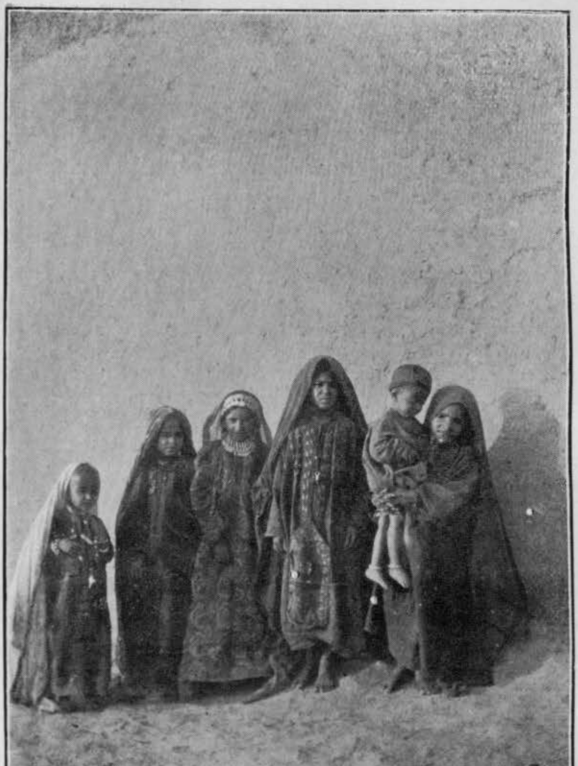
In 1901 among the rural population there were 7,430 women and 8,259 men or about 900 women to every thousand men. The proportion of males and females among the principal tribes of the District is shown in the annexed statement.

	Males.	Females.	Adult males.	Adult females.
Méngals	2,450	2,160	1,407	1,201
Muhammad Hasnis	2,197	2,139	998	985
Rakhshánis ...	1,847	1,655	983	910
Hindus	204	125	165	76

No record was made of social condition during the census of 1901.

Marriage customs.

Among the indigenous population, and specially among the poorer classes, marriage almost invariably takes place after puberty, the chief reasons being the payment of the bride price (*lab*), and the heavy demands which are made on a wife and which can only be undertaken by a full grown woman. For not only do the ordinary household duties devolve on her, but she is required to help in loading,



Group of Brahuis (females.)

unloading, pitching and striking the tents (*gidán*) tending the flocks, making felts, cutting and bringing home fodder, and generally to assist in all agricultural operations except ploughing and sowing.

So far as can be ascertained, polygamy is rare, except among the well-to-do; but the people have no objection to a plurality of wives up to the limit prescribed by Muhammadan law. From a rough estimate made in certain selected villages in the District (1905), it appears that the number of polygamists among the married men is about 4 per cent. The wealthy who are the only class with the means to pay *lab* more than once take more wives than one, either for pleasure, or sometimes for the sake of offspring. Cohabitation with concubines (*surét*) is permitted by custom, but the offspring do not inherit. Marriage with near relations, though not always the rule, is preferred, because exchanges can be easily arranged, the bride price payable is less, the parties are already mutually acquainted and their mutual relations are strengthened by the marriage tie.

Marriage ceremonies.

Among the well-to-do, the bridegroom is generally about twenty and the bride about four years his junior, while among the poorer classes both the bridegroom and bride are generally older. Marriages with widows are commoner among these classes. In rare cases infant betrothals take place, generally among very near relations and sometimes among intimate friends. Except among the very poor, or when marriage takes place at an advanced age and the man makes his own choice, the prospective bridegroom ordinarily has little to say in the selection of his bride. When his parents or relations wish him to marry, they look for a suitable girl, and the first step is to send a grey-beard, a Saiad or a near relation to her father to make the preliminary arrangements, and ascertain if the appearance and other qualifications of the intended bride are satisfactory. If the overtures are

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well received, a deputation of the bridegroom's friends and relatives (*rasál*) proceeds to the father's house to arrange the details of the bride price or *lab* and the bridal dresses (*poshák*) which have to be presented. When these matters have been settled, a day is fixed for the betrothal (*sáng*). This ceremony takes place in the home of the bride's father, and is attended by the friends and relations of both parties. Sheep presented by the bridegroom are eaten, the betrothal and the amount of the *lab* are publicly announced, and prayers (*fátéh*) are offered for the welfare of the parties. The bridegroom presents the bride and her mother with a shawl or wrapper, and is further bound to supply the girl with a dress (*poshák*), consisting of a wrapper (*gud*) and a shirt (*kús*) once in six months, and a pair of shoes *kaush* once every year until the final ceremony of marriage has been performed. When both parties belong to the Baréch Afghán tribe the first *nikáh* is also performed on the day of betrothal, and the bridegroom is permitted to visit the bride at her father's house and enjoy all the privileges of a husband. In the case of mixed marriages, the father of a Baréch bride permits such visits to a Baloch or Bráhui bridegroom, but if the girl belongs to a Baloch or Bráhui tribe, the Baréch bridegroom cannot approach her before marriage. The ceremony of *sáng* is looked upon as binding, and a man cannot retreat except under very special circumstances. In the case of a woman, the betrothal is absolutely binding except in the case of adultery on her part or a strong suspicion of it.

When the *lab* has been fully paid, a date is fixed for the marriage (*barám*), and the final ceremony of the *nikáh* is performed in accordance with Muhammadan rites at the bride's home, but in a separate *gidán* or hut, technically known as *kila* or fort, which has been specially prepared for the purpose. Before starting for the bride's house, the bridegroom is bathed under an arch of drawn swords

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to protect him from evil spirits, dressed in new clothes and girded on with his arms. After the *nikáh* has been performed the female relatives of the bride conduct her to the *gidán* and hand her over to the bridegroom. The bride and bridegroom remain in the *gidán* for three days, on the morning of the fourth day a sheep is sacrificed (*mon ditar*) in front of the *gidán*, and the married couple are then permitted to return to their home.

Bride-price.

The amount and payment of *lab* is the important factor in all matrimonial arrangements. In the western part of the District, where money is scarce, the payment is usually made in kind, the nominal rate being fifteen camels or thirty *jilav** of sheep. In practice, however, about one third is actually paid. Among the Sanjránis the price is higher, and instances are known in which as much as Rs. 2,000 have been paid by the Naushérwánis of Khárán for a Sanjráni girl. In such cases, however, a third of the price is usually refunded in the shape of camels and slaves, which are looked upon as the private property of the bride.

Among the Rakhshánis and Méngals of Nushki the average amount of *lab* paid for a virgin is about Rs. 500, a portion of which is usually given in kind. There is no hard and fast rule, and the amount varies according to the position of the bride's family, the personal attractions of the girl, and the paying capacity, age and social standing of the suitor. The price paid for a widow is generally half of that given for a virgin, but this again depends on the age and attractions of the widow.

In addition to *lab*, the bridegroom is called upon to make the three following payments before the ceremony of *nikáh* is performed; (a) *haq-i-mahr*, or deferred dower, which is recognised in theory and varies from Rs. 20 in Nushki to a camel in Chágai. As a rule, this is merely a nominal payment and in practice the wife makes it over as

*Jilav is equivalent to 8 sheep and 2 lambs or 3 goats and 2 kids.

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a gift to her husband. (b) *Khákhar ná seak,* a curious custom which seems to prevail in many parts of Baluchistán and in accordance with which the husband presents his wife, as a dower, with a share of the merit (*sawáb*) which he hopes to obtain after death by giving alms from his hearth (*khákhar ná seak*) during his life time. The share given varies from one-sixth to one-third, and absolves the husband from the onus of giving any dower upon earth. (c) *Shír bahli* or compensation for suckling or bringing up the bride; this payment, which is demanded by the mother or nearest female relation of the bride, varies from Rs. 10 to Rs. 100 according to the position of the parties. *Shír bahli* is not paid among the Baréch Afgháns, and among the other tribes it is paid only in the case of virgins.

System of exchange.

Mention may also be made of the system of exchange of girls (*char pa chari* or *badli*) which prevails among the tribes. Under this system, if there is much difference between the ages or personal attractions of the girls which are to be exchanged, the parents of the inferior girl have to pay an additional sum in cash. Similarly an elderly man, who obtains a young girl in exchange for one of his own female relations, has to make an additional payment by way of compensation (*saru or bákhi*). It would appear that this custom of additional payment is confined chiefly to the nomadic population.

Marriage expenses and gifts.

The marriage expenses vary according to the position and means of the contracting parties, the average amount which falls on the bridegroom's party being from Rs. 100 to Rs. 160. In addition to the payment of *lab haq-i-mahr* and *shír bahli,* the bridegroom is called upon to provide sheep and *ata* for the marriage feast, and to present the bride on the day of wedding with ornaments (*sar-o-sát*) and various articles of household furniture (*urdu*). The bride's parents provide her with a dress, ornaments and articles of furniture, and present the

bridegroom with a carpet and various articles of horse gear. Their expenses are estimated from Rs. 40 to Rs. 60.

Divorce.

Divorce is rare among the tribesmen, but it is not infrequent among the lower classes such as the Loris. The usual reasons for divorce are the disagreeable appearance or temper of the woman, immorality proved or suspected, and petty theft. The method of divorce is for the husband to throw three stones or clods of earth, one by one, into the lap of the woman and to thrice repeat the words "I divorce you." This ceremony, if duly performed in the presence of witnesses, renders the divorce absolute. The divorced woman has the status of a widow and can remarry in the tribe, but if she is divorced for misconduct she cannot marry her seducer. A woman can obtain a divorce, if her husband is proved to be impotent or constantly maltreats and neglects her. To effect this, pressure is brought to bear on the husband by the parents through the tribal headmen. When the divorce has been obtained by the woman, a part of the *lab* is repaid to the husband, the amount being determined by the tribal elders.

Penalties.

Before British occupation, death was the punishment of a faithless wife and her paramour caught *flagrante delicto*. This still holds good in theory, but of recent years the custom has been modified by the interposition of Government, the award of punishments and fines on the guilty parties, and the payment of compensation to the injured husband and the parents of the woman. The ordinary demand for compensation is Rs. 1,500, but the amount actually awarded is determined by *jirga* in accordance with the merits of each case. One-fourth of the compensation is paid to the parents of the woman and the remainder to the husband.

The status of women and their rights to property.

The position of women is one of extreme degradation, and both before and after marriage they lead a life of constant drudgery and toil.

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Owing to the system of *lab*, a girl, as soon as she reaches marriageable age is for all practical purposes put up to sale to the highest bidder. As a daughter or as a wife she cannot claim any rights in property, and as a widow she cannot inherit, and is only entitled to a bare subsistance allowance from her late husband's estate. If divorced, she can only carry with her the dress she is wearing.

Among the Baloch and Bráhui tribes in the District, a widow enjoys rather more freedom than among the Afgháns in other parts of the Agency. Custom does not compel her against her wishes to marry one of the surviving brothers of her deceased husband, and she is generally at liberty to choose her second husband. Her position has been further strengthened by the following important decision given by Mr. (now Sir Hugh) Barnes, then Agent to the Governor-General, in November 1892 in the case of Lukmán Kákar versus the Crown.

"As regards a widow's power of choosing a husband, Muhammadan law must not be over-ridden by local inhuman and ignorant custom and, in all disputes regarding widow remarriage brought before the Courts in British Baluchistán or the Agency territories, the Courts of law should follow the provisions of Muhammadan law, in so far as that law gives to widows full liberty and discretion to marry whom they please; and no case of the kind should be committed to a *jirga* for settlement without a clear direction that, on this point of the widow's freedom of choice, no curtailment whatever will be permitted of the liberty and discretion which Muhammadan law allows her. The only point in which any concession to local tribal custom can be permitted is that which relates to the payment which should be made by the new husband to the late husband's family. * * * In order to put a stop to the feuds which might otherwise arise from allowing widows to marry whom they please, it is admissible for

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Courts to settle the sum of money which should be paid to the family of the widow's late husband by the man she promises to marry. This is the point in the settlement of these cases, which may usefully be made over to a *jirga* for decision." This decision was reaffirmed by Sir James Browne in June 1895, in the case of Musamát Miryam, Yásínzai in the Quetta District.

Inheritance.

Inheritance among males is governed by the general principles of the *shariat* modified by tribal custom. Women are allowed no share in inheritance, but a person in his life time may bestow on his wife, daughter or sister a portion of his moveable or immoveable property by a written deed of gift, and such property descends to her male issue, failing which it reverts to the donor or his heirs.

Language.

The principal dialects spoken by the indigenous population are Baluchi, Bráhui and Pashtú. The last named is limited to the Baréch Afgháns and the Ghilzai nomads who represent about 2 per cent. of the population. Bráhui is spoken by about 62 per cent; while Baluchi is the dialect of the Rakhshánis and Mándais in the Nushki tahsíl, and of the Sanjránis in Chágai. The Baluchi spoken in the District is what is known as the western or Makráni* and is more largely impregnated with Persian words and expressions than the eastern dialect. The local Hindus, when speaking among themselves, still adhere to Jatki. The Loris, who are a menial class, use the dialect of the tribe to which they are attached for the time being, but have also a peculiar and secret dialect of their own known as Lori Chíni, which is made up by inverting Persian, Bráhui or Baluchi words. The name Lori Chíni itself is said to be derived from the Sindi word *Chaeni* "said" or "invented" and a few instances of the

* *Census of India* 1901, Vol. V and V-A, p. 74.

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inversions may be quoted by way of example:—

three	hés	Inverted form of Baluchi.	*seh.*
four	rách	Ditto ...	*chár.*
five	champ	Ditto ...	*panch.*
ear	shog	Ditto ...	*gosh.*
hair	dum	Ditto ...	*mud.*
head	ras	Ditto ...	*sar.*
belly	tép	Inverted form of Urdu ...	*pét.*
brother	dirábar	do. of Persian.	*brádar.*
flesh	shogt	do. of Baluchi.	*ghost.*

Among other words peculiar to the jargon may be mentioned *tibbar* (father), *somb* (nose) and *goma* (a rupee).

The language of the Courts is Urdu, a corrupted form of which is being rapidly picked up by the people in the neighbourhood of Nushki. The medium of correspondence, except in the case of official documents, is Persian.

Races and tribes.

The following statement shows the distribution, by races and tribes, of the indigenous inhabitants of the District:—

Bráhuis	Kambráni	182
	Lángav	586
	Méngal	4,610
	Muhammad Hasni	4,336
	Raisáni	37
	Sarparra	49
	Miscellaneous clans	63
	Total ...	9,863
Baloch	Rind	23
	Rakhsháni	3,502
	Total ...	3,525
Afgháns	Baréch	253
	Ghilzai	11
	Kákar	17
	Tarín	29
	Total ...	310

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Others ...	Loris	86
	Jat and Chhanáls	84
	Saiads	306
	Dehwár	18
	Hindus	329
	Servile dependants	720
	Total ...	1,543

The Bráhuis, it will be seen, are the most numerous, comprising about 62 per cent. of the aggregate; the Baloch come next with 23 per cent., while the number of Afgháns (310) and others is insignificant. The non-indigenous population (448) is small and fluctuating, and it will not be necessary to deal with them further in this section, which will be confined to a description of the chief indigenous tribes.

Tribal constitution.

A detailed description of the constitution of typical Bráhui and Baloch tribes has been given in Chapter VIII (pp. 121 and 124) of the Census Report of 1901, and in dealing with the races of the District, the most important of which are either Bráhui or Baloch, it will not be necessary to attempt a separate account of their tribal organisation.

Rakhshánis.

In the census returns of 1901, the Rakhshánis were shown as a Bráhui tribe, but it would appear more correct to class them as Baloch. Their language is Baluchi, and in his description of the Baloch Race Dames* has shown the Rakhsháni as a clan of the Rinds, their progenitor being Hamal son of Hasan, son of Sahak who was ninth in descent from Rind.

The founder of the tribe is supposed to have been a Baloch named Rakhsh, who lived some thirty-three generations ago and who had two sons, Hárun and Jamáldín. On the death of their father the two brothers quarrelled, and Jamáldín left his home near Aleppo and

*Asiatic Society Monographs, Vol. IV. The Baloch Race, 1904, p. 77-78.

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migrated with his followers to Gwásh in Khárán, where he died after a sojourn of some thirty years. He was succeeded by his son Hot, and the clan became known as the Jamáldínis. About this time the Mándais of Nushki, a Baloch tribe, who had come from Arabia about ten generations ago, being oppressed by the exactions of their Mughal rulers, called in the assistance of the Jamáldínis. The invitation was accepted and the tribe migrated to Nushki, when the lands of the District were divided equally between the adult males of the two clans. The Mándais thus became amalgamated with the stronger clan of the Jamáldíni Rakhshánis.

In the meantime, the other branch of the Rakhshánis, who were now under the leadership of Bádín, the son of Hárún, and were known as the Bádínis, had been defeated in their fights with the neighbouring tribes and compelled to migrate to Jaláwar in Khárán. The Jamáldínis and Mándais, finding that they were unable to cope with their Mughal oppressors, in their turn summoned the Bádínis, who finally disposed of the Afgháns by the following stratagem. The Governor and his followers were invited to a feast and the Mughal guests were billeted among the various Bádini families. On a preconcerted signal, which was the beat of a drum announcing the "*nosh kháne*"* or commencement of the feast, the Bádínis fell upon their guests and killed them. According to local tradition this accounts for the modern name of Nushki, which is a contracted form of the words *nosh kháne*. Bádín was summoned to Kábul, but he appears to have rendered a satisfactory explanation of his conduct, and was permitted to return on condition of the payment of a fixed annual tribute. On his return the Bádínis were given a share in the tribal lands, and henceforth became one of the permanent tribes of the District.

The Rakshánis are also to be found in both Seistán and

*Baluchi, meaning "Begin to eat."

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Khárán, and are occasionally met with on the banks of the Tarnak and Helmand. Their total number in the District in 1901 was 3,502 : (males 1,847 and females 1,655), representing about 22 per cent. of the total population. Their principal clans are the Bádíni (1,827), Jamáldíni including Mándai (930), Siáhpád (149) and Tauki (569). The Bádínis and Jamáldínis reside mostly in the Nushki tahsíl and the other sections are found in the central part of the Chágai sub-tahsíl.

The Bádíni Rakhshánis.

The Bádínis are sub-divided into sixteen sections, of which the Fakírzai, Misrízai, Dashtkáni, Mákíki, Kambarzai, Bolázai, Shambozai, Kamálahánzai, Jíandzai and Jangizai claim a common descent, while the Alozai, Ingalzai, Dháhézai, Balgháni, Izatzai and Mandozai are ali[illegible] (*barok*) who have been amalgamated with the clan at various periods. Of these, the Ingalzai Dháhézai and Balgháni are of Afghán descent. The ruling family belongs to the Bolázai section, and the leading men of the clan at the present day (1905) are Mír Alam Khán, Mír Karím Khán and Mír Abdul Azíz, all of whom are [illegible] zais. During their earlier history the tribe seems to have been fairly united, but in later years a feud originated between the followers of Mír Alam Khán and Sharíf Khán, the father of Mír Karím Khán. There was much desultory fighting, during the course of which seventeen men are reported to have been killed. A settlement was effected by Captain Webb Ware in 1898, but the division still exists and the clan now occupies two separate villages which are named after Alam Khán and Karím Khán.

The Jamáldíni Rakhshánis.

The Jamáldínis are divided into four sections: the Haidarzai, Karamzai, Pahlwánzai and Shakarzai—the last named being the headman's family. The leading men are Mír Ján Bég and Mír Kásim Khán.

The Mándais.

The Mándais, who, as already stated, are amalgamated with the Jamáldínis, are divided into the following seven sections: the Amírzai, Mírozai, Ramzánzai, Shádézai,

Muhabatzai, Isázai and Fírozzai. Their leading men are Mír Baloch Khán and Mír Halím Khán.

Characteristics of the Rakhshánis.

Pottinger who visited the District in March 1810 describes the Rakhshánis "as idle, ignorant, unmannerly and predatory; the latter quality" he adds, "they inherit in common with the whole race, and they are likewise much addicted to gambling. Hospitality and an adherence to such promises as relate to their personal bravery or fidelity, seem to be very justly their great boasts."*

These tribes are no longer predatory, but in other respects they do not appear to have changed to any great extent, and with a few exceptions are generally poor and lazy cultivators.

The Zagar Méngals.

The Méngals, the most numerous of the Bráhui tribe in Baluchistán, may be divided into three main sections: the Jhalawán Méngals the Méngals of the Bolán and the Zagar Méngals of Nushki. The latter claim their descent from Zakria, the second son of Ména, who was one of the [illegible]s Ibráhím. Up to a comparatively recent date, the [illegible] of the Méngals resided in Kalát, but during the reign of Mír Mehráb Khán of Kalát (1695-6) a feud broke out between them and the Bádíni Rakhshánis of Nushki. In the desultory fighting which continued for several years, the Méngals lost heavily, and at length a peace was concluded by Mír Abdulla Khan (1715-6) who compelled the Bádínis to surrender a share of the Khaisár stream to the Méngals. The latter tribe, taking advantage of this opening, emigrated to Nushki, and built a village on the Khaisár stream. The further account of their subsequent acquirements of land and water in the District is given in the section on the Early Revenue History in Chapter III of this volume.

At the present day the Zagar Méngals are one of the prominent tribes in Chágai, and represent about 29 per

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* *Travels in Baluchistán and Sind*, by Henry Pottinger, (London 1816), p. 124-5.

cent. of the total population, their number being 4,610: males 2,450 and females 2,160. They are divided into two main branches, the Bádínzai and Nozai. The former comprises the sub-sections of the Bájézai, Trásézai, and Amirzai and the latter the sub-sections of the Mahmúdzai, Báránzai and Muhammadzai. The Páindzai, a sub-section of the Bajézai, are the *Sardárkhél* or ruling family of the Zagar Méngals, and the present chief (1905) is Mír Muhammad Ali Khán, Páindzai, and the other men of note and influence in the tribe are Mír Attar Khán, Páindzai, Mír Chandan Khán, Trásézai and Mír Gauhar Khán, Páindzai. In addition to the Zagar Méngals, the following sections of the Jhalawán Méngals, namely the Sásoli (738), the Sháhezai (232) and the Samalánri (951) are also to be found in different parts of the District. POPULATION.

Like other Bráhuis, the Méngals have from time to time been strengthened by the recruitment of individuals and groups from other tribes. Thus the Ahmadzai, who were originally Kúrds, the Gazazai, originally Muhammad Hasni and the Allahdádzais, who are descended from an Afghán father by a Méngal wife, are clans which have become affiliated (*barok*) with the tribe. The ceremony of affiliation is a public one, and the recruit is required to take an oath in the presence of not less than five of the tribal elders that he will share in the common good and ill of the tribe. Sheep are then killed and partaken of by all present. After this ceremony has been performed the recruit is considered to have a vested interest in the tribal welfare, and is entitled to his share of the tribal lands at the periodical divisions. His admission is also sealed with blood, by a woman from the tribe being given to him or his sons in marriage.

The Muhammad Hasni. The Muhammad Hasni, also known as the Mámásáni, are a migratory and nomad people found in all parts of the District from the Rás Koh Kámarán hills to Seistán. They are also to be found in Khárán, Seistán, Lúristán

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and along the valley of the Helmand. Their total number in the District was estimated in 1901 as 4,336: 2,197 males and 2,139 females. The local Muhammad Hasni claim connection with the Mámásáni Lúrs, who are described in Lord Curzon's Persia* as "occupying the country still known as Shulistán, and extending as far east and south-east as Fars and the plain of Kazérun. This tribe prides itself on its origin, claiming to have come from Seistán, and to be directly descended from Rustam * * * They have been even more celebrated for their predatory and lawless habits than the Kuhgelu, and have always found both a rallying place and a retreat in their celebrated hill-fortress of Kaleh or Diz-i-Safid, the white castle (so called from the colour of the rock), in the mountains, some fifty miles to the north-east of Shíráz."

The local tribe is nominally subject to Sardár Rustam Khán of Jebri in Khárán, but he has no real influence over any Mámásáni clan north of Khárán. The Mámásáni *tumandár* or headman who appears to exercise most power over these wild tribes is Sháh Gul Khán, Siahezai Mámásáni, a resident of Koh-i-Pusht, but even he has little influence except over his own immediate followers. The Mámásánis have the reputation among their neighbours of being bad friends and bitter enemies. According to the census returns, the principal clans found in the District are: the Dahmardag (88), Darakzai (318), Dastakzai (48), Hájizai (35), Hárúni (37), Idozai (102), Kehrai (322), Kiázai (648), Lohárzai (52), Mandozai (318), Mardán Sháhi (58), Shahákzai (287), Sheikh Hussaini (138), Siáhézai (567), Subázai (128), Sulaimanzai (33) and Yághízai (387).

With the exception of the Hárúni who are engaged in agricultural pursuits in the Nushki tahsíl, and the Mandozai who work as tenants in Chágai, the rest of the

*Curzon's *Persia*, Vol. II, p. 318.

clans are nomads pure and simple. The Notézais (877) have been included in the Census Report among the Mámásánis, but they do not admit the connection, and claim to be of Rind Baloch descent. Their leading men in Chágai are Mír Muhammad Khán and Mir Safar Khán. POPULATION.

The Sanjránis. The Sanjránis who during the census of 1901 were classed as a clan of the Rakhshánis, also claim to be Rind Baloch. Dames in his *Baloch Race** says that "the Sanjráni or Toki are, all agree, an important Baloch tribe." According to local tradition, Sanjar, the founder of the tribe, seceded from the main body of the Rinds owing to family quarrels, and came to Chágai seventeen generations ago. The earliest genealogy of the tribe, which can now be ascertained, commences with Ján Bég I who lived six generations ago. His grandson, Ján Bég II, who was a man of enterprise, accompanied by three of his sons, Khánján Khán, Nawab Khán and Islám Khán, led an expedition into the valley of the Helmand and succeeded in ousting the Sarbandis and others then in possession from their settlements on the Helmand as far west as Seistán. The fourth son Sháh Pasand, had in the meantime been left behind in charge of Chágai, where his descendants are to be found at the present day (1905). Having divided the Helmand valley among the three sons who had accompanied him, Ján Bég set off for Chágai, but died on the way home and was buried at Khwája Ali, where his grave still exists.

Khánján Khán, the eldest son, subsequently abandoned Afghánistán and settled permanently in Persian Seistán, but the descendants of the other sons retain possession of Rodbár, Khwája Ali, Bandar-i-Kamál and Chahár Burjak, all in Afghán territory. Ján Bég married his sister to Kamál Khán, Baréch, and appointed him as hereditary

Asiatic Society Monographs, Vol. IV. *The Baloch Race* 1904, p. 52.

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náib of the Sanjránis of Chágai with a fifth share of the tribal revenues. The present *náib* is Dost Muhammad Khán (1905) who is fourth in descent from Kamál Khán.

Under the name of Sanjráni are also included numerous small tribes of Taokis, who are subject to the Sanjráni headman and occupy the country west of Chágai and as far as Persia. According to the census of 1901, the Sanjránis of Chágai, including the Taokis, numbered 569 : males 290 and females 279, of which 189 only were real Sanjránis. Other sections of the Taokis met with in the District are the Narui, whose boundary is from the Teznán hill to the Dalíl Range, the Salháni who reside at Baráb Cháh, the Dahmardag, the Kamarzai, the Sháh Karda, and the Dálbandin Taokis who are divided into four sub-sections, the Ilizai, Masuzai, Nedamzai, and Allahdádzai.

The Sanjránis have never paid tribute to the Khán of Kalát, nor have they ever been subject to the Khárán chief. Prior to British occupation their dealings for many years were exclusively with Afghánistán, to which country the greater numbers and the more important branches of the tribe belong. An account of these is given in the section on History.

Though only few in number, the Sanjránis are acknowledged as the rightful owners of the country, the borders of which commence from Muhabbat near Nushki and Káin and extend west as far as the Koh-i-Dalíl. The country beyond that again is also chiefly occupied by Sanjránis as far as the Persian border. On the north their territory extends to the new Indo-Afghán boundary line and southwards to the water-shed of the range of mountains south of Dálbandin. Mashki Cháh, Isa Táhir, Panihán, Zaian, Galicháh and Soráp are within the Sanjráni limits. In former days they also owned the country for some distance south of the range south of Dálbandin, including Hurmágai and other places, but the Khán of

Khárán has encroached upon this portion and the watershed of the range now forms their actual boundary. The present headman of the Chágai Sanjránis is Ali Khán, who receives a monthly allowance of Rs. 350—and enjoys certain exemptions from revenue, which are mentioned in Chapter III under Muafis.

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Saiads.

According to the census of 1901, the total number of Saiads in the District amounted to 306 (males 169 and females 137), of which 238 were classed as Shadizai Bukháris, 5 as Kharsíns, and 63 as "unspecified" or miscellaneous. The Saiads in the Nushki tahsíl belong to the Bukhári clan and are the descendants of one Hasan Taraka, who is said to have come seven generations ago from Kunar in Afghánistán where a shrine erected to his memory exists to the present day. He has also a shrine at Kili Kásim Khán near Nushki. In consideration of the assistance afforded by him to the Rakhshánis during their fights with the Rékis, he was given 3 *shabánas* in the Khaisár stream, and his descendants are entitled to a share in the Dák lands. Hasan had four sons: Shádo, Háji Námu, Rahmat and Isa, who have given their names to the four divisions of Saiads, who now live in Nushki and are known as the Shádozai, Hájizai, Rahmatzai and Isázai sections. Several Isázai Saiads are also found in Khárán. The Saiad headmen in Nushki are Khwája Muhammad, fourth in descent from Shádo, Zainuddín and Nawáb Sháh. These Saiads intermarry with the local tribes.

Nushki Saiads.

Chágai Saiads.

The Saiads of Chágai are known as the Balánoshi Saiads, and are the earliest inhabitants of the District of whom there is any authentic record. It is not known who their predecessors were, and there is no reliable authority to show whence they came or to what particular family of Saiads they belong. They appear to have remained in peaceful possession of the country until disturbed by the incursion of the Sanjránis, when, according to tradition,

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they did not surrender their rights without a severe struggle and until they had been worsted in a sanguinary engagement, in which they lost more than half their fighting men. Driven from the country, the Saiads took refuge in the Chágai Sarlat, where remnants of the former masters of Chágai are still to be found. The inhabitants of the neighbourhood still relate how the spilling of so much innocent Saiad blood moved the Deity to a wrath made manifest by the trembling of the ground and by the drying up of the Nasíri Káréz. At the time of the Sanjráni invasion, the Saiads seem to have been a fairly numerous tribe, but their numbers have steadily diminished and at the present time (1905) they are only represented by about thirty families. These families depend chiefly for their livelihood on a small tax which they levy on Afgháns and others who visit their hills to collect asafætida.

Laskhar Sháh, the late head of the Balánoshi Saiads of Chagai, who died in 1905 leaving five sons, was held in great veneration by all the tribesmen on both sides of the border, who were accustomed to obtain his blessing before embarking on a journey or any enterprise of an impertant nature. Lashkar Sháh did not nominate his heir, but it is understood that the religious succession devolves on his fourth son Mullá.

Baréch.

In 1901 the Baréch in the District numbered 253: males 146, females 107. The Baréch are Saraban Afgháns, who are divided into four large clans: the Mandozai, Zakazai, Badalzai and Shíráni, and occupy the Shoráwak district of Afghánistán. The few families that are to be found in the Chágai sub-tahsíl belong to the Akazai section of the Mandozai clan and have practically become absorbed among the Sanjránis, whose dialect they have adopted. The families in the Nushki tahsíl belong to the Ahkozai and Sámézai sections of the Mandozai clan, and immigrated from Shoráwak five generations ago. The

local headman is Badal Khán, after whom the Badal Káréz is named and of which the Baréch own 12 *shabánas* out of a total of 32½. POPULATION.

The Lángavs in the District numbered 586 in 1901: males 303, females 278. They are immigrants from the Sarawán province of Kalát, their head quarters being the Mungachar valley. Among the Bráhuis of Kalát they are looked down upon as a subject and inferior race, but this does not seem to be the case in Nushki, where they are sometimes permitted to intermarry with the other tribes. Lángav.

The principal sections in the Nushki tahsíl are the Sháhézai and Jaurazai; and they have gradually acquired by *khat kashi* shares in many of the *kárézes*. In Chágai where they have acquired shares in the Lijji and Padgi Sháh Kárézes, the Lángav number about thirty families belonging to the Lijji, Zahrizai and Salárzai sections. They also work as tenants.

In 1901, there were thirty families (86 persons; 46 males and 40 females) of the Loris in the District, of which six belonged to Chágai and the remainder to the Nushki tahsil. They call themselves Sarmastánri or the descendants of Sarmast and are regarded by the tribesmen as a menial class with whom intermarriages are not permitted. Their chief occupations are those of blacksmith or *ahinkár*, carpenter or *drakhánr*, and musician or *sháir*. They also perform circumcisions. The carpenters and blacksmiths are usually attached to villages and tribes and the wages, to which they are entitled, have been mentioned under "Rents and Wages." On the occasion of marriages their perquisites are the old clothes of the bride and bridegroom, the offal of all animals killed for the feast, a donkey from the bride's relations and a bullock from those of the bridegroom. Loris.

In 1901, the Hindus in the District numbered 329: males 204, females 125; but these numbers also included the aliens residing in the Nushki bazar. The domiciled Hindus.

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Hindus, who are known as the Taldárs, are immigrants from Kachhi and Shikárpur and number in all about thirty families of whom twenty-two families are settled in Nushki itself, while the remainder live in the villages in the neighbourhood (1905). They are Aroras of the Dahra and Dakhanra clans. In pre-British days they paid a poll tax varying from 8 annas to Rs. 2/8/0 per family and had other services to perform for the tribal headmen; they were also compelled to wear either red *páijámas*, a red turban or a red cap as a distinctive mark of their race. The condition of the Hindus is prosperous and a considerable portion of the trade with Khárán, Garmsél and Shorawak and a part of that with Seistán is in their hands. They are also the financiers of the local *zamíndárs* and as such have gradually acquired landed property in the neighbourhood of Nushki by purchase or mortgage. The leading men among them are: Chaudhri Hardás Mall, Séth Khúb Chand and Déru.

Further details of the domiciled Hindus of Nushki will be found in a monograph compiled by Rai Sáhib Diwán Jamiat Rai and published in the *Journal* of the Asiatic Society of Bengal*, in 1903.

Rékis.

The Rékis, as their name implies, are "dwellers in sand" or in the low lands and are divided into three divisions: the Rékis of Mírjáwa, the Rékis of Máshkél and the Rékis of Jálk. All three divisions are said to have sprung from a common ancestor, but while all acknowledge Muhammad Razá Khán as their chief, each section pays *sardári* dues to its own immediate head, who in the case of the Rékis of Máshkél is Mír Kya Khán, and in the case of Rékis of Jálk, Mír Lalla; the former, however, pays tribute to Sir Nauroz Khán of Khárán. The Rékis number in all about 650 families and own numerous flocks. A few of them periodically visit the Chágai District for pasturage.

Dámanis.

Captain Webb Ware gives the following account of the

* Vol. LXXII, part III, No. 2, Calcutta, 1903.

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Dámanis, a tribe on the Persian border who were very notorious in the early days of the Trade Route:—"In point of numbers the strongest tribe inhabiting Sarhad. They are a pastoral Baloch tribe possessing marked predatory habits and closely allied in appearance, manners and customs to the Marris of Baluchistán, with whom they claim affinity. The Dámani acknowledge as chief one Mír Jahind Khán, Yar Muhammadzai, and they are divided into the following eight sections, viz: the Yár Muhammadzai, the Rahmánzai, the Mír Bégzai, the Sohrábzai, the Surezai, the Mír Gulzai, the Hussainzai, and the Umarzai. Tribal tradition has it that many generations ago a branch of the Marris left the parent stock and settled in the high lands of Sarhad tempted by the close resemblance which that country bears to the land of their birth. In course of time the branch which took root in Sarhad gradually extended its authority until most of the petty clans inhabiting Sarhad came under its sway, with the result that eventually all combined to form one tribe, which become known amongst their neighbours as Dámanis, or dwellers on the mountain slopes.

"The Dámanis number in all some 800 families and inhabit the Safed Koh, Hadgali, Bundéran, Talab, Reg-i-Malik, Rod-i-Gazo, Shakbund, Muhammadábád, Nakokábád and Gurjan. Like the Marris of British Baluchistán, the Dámani are essentially a race of hardy mountaineers, devoted to their highlands, which they only leave once a year in July, to collect their date harvest in Mashkél, or to raid, a practice to which they are much addicted. One-third of the total yield of Mashkél belongs to this tribe, who pay no revenue either to the Persian Government or to Khárán. They are regarded by their neighbours as a nest of hornets with whom it is best not to interfere. Summed up in a few words the Dámani are a set of wild, barbarous, semi-independent mountaineers on whom the Persian yoke

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presses but lightly. There is no doubt that the Persians could impress their authority on the Dámani if they made a determined effort to do so; but hitherto the Dámani have successfully opposed the various feeble attempts the Persians have made against them from time to time."

Religion. The indigenous population of the District may be divided into two religious denominations, Musalmáns and Hindus. The numbers of the latter are, however, insignificant, and form only 2 per cent. of the total population of 15,689 persons censused in 1901.

Islám. The Muhammadans of the District belong to the Sunni sect, but the Saiads and *mullás* alone know a little about the forms of their religion. The higher classes are devout in performing their prayers at stated times, in keeping the fasts, and in setting apart a portion of their income for *zakát*. But with the majority of the people, superstition takes the place of religion, and they believe in the intervention of ancestors and saints in the pursuits of their daily life. These saints are invoked to cure diseases, to avert calamities, to bring rain, and to bless the childless with offspring. Saiads and *mullás* also play an important part, and their amulets, charms and blessings are constantly invoked. The most influential men of this class in Nushki are Sáhibzáda Gul Ján and Muhammad Husain and Saiads Khwája Muhammad and Malang Sháh; and in Chágai *mullás* Imám Khán, Sanjráni, Sakhi Muhammad Sháh, Fakirzai, and the five sons of the late Saiad Lashkar Sháh, Balánoshi (1905).

Among the common superstitions are the following:—

If a fox crosses the traveller's path from the right it is considered a lucky sign, but if it should pass from the left to the right it is ominous and the traveller must halt for a while ere he proceeds on his way. If a snake crosses the path, the traveller must halt until it has disappeared. The fox's bark, which is locally described as

kúr kúr, is considered an auspicious sign and one that predicts rain, but if the same animal emits the cry of *wá wá*, a great calamity or a death is foretold. Such was the importance attached to this sign, that in former days raiding parties have been known to have halted for several days on hearing the ill-omened sound. POPULATION.

In pre-British times "ordeal by fire," was much resorted to for the purpose of determining the innocence or guilt of a suspected thief. The accused was called upon either to hold a piece of red-hot iron in his hand, or to pick out a ring thrown into a bowl of boiling *ghí*. If the man came out of the ordeal without injury or hurt, his innocence was proved, and his accuser was compelled to present him with a camel by way of compensation (*panjabahá*) and at the same time give another camel to the tribal headman. This method of trial is still practised by the nomads in the more remote parts of the District (1905).

There is a very wide-spread belief in the power of the "evil eye," in the power of evil spirits generally, and in the propensity of the latter to indulge in theft. Thus, when the harvest is ready, the grain collected on the threshing floor is encircled by a line drawn with the point of a naked sword, which is then placed on the top of the heap. A piece of wood with the *kalíma* inscribed is also fixed into the heap.

Hinduism.

The religion of the majority of the domiciled Hindus is a mixture of Sikhism combined with idol worship, while the Shikárpuris worship Daryá Baksh, the River Pír of Sind. Their religious practices are loose and have been considerably influenced by their surroundings. Many of the banias employ Muhammadan servants, and the majority of them will drink water from a skin or vessel belonging to a Muhammadan. It has, however, been noticed there is a tendency towards a stricter observance of caste pre-

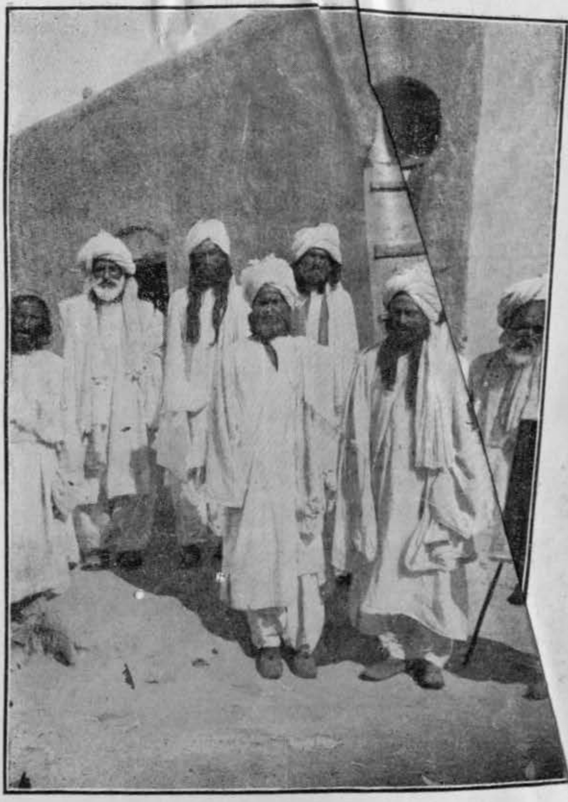
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judices since they came in contact with the Hindus from India.

Occupation.

Occupations were not recorded in detail in 1901, the family system of enumeration having been followed, and the occupation of the head of the family being assumed to be that of the remainder. The population in this case may be roughly divided into five classes by occupation; landowners, cultivators, flockowners, traders and artisans.

As is natural in a pastoral country, the flockowners and their dependants form by far the most numerous class. Their total in 1901 was estimated at 10,602 persons, of which 2,836 were classed as actual workers (males) and 7,766 as dependants of both sexes. Of these again the majority were camel owners, and were represented in the Nushki tahsíl principally by the Trásézai and Amírzai Méngals, the Muhammad Hasnis, and the Fakírzai and Izzatzai Rakhshánis, and in Chágai by the Notézais, Muhammad Hasnis and Taukis. The Hamírzai sub-section of the Trásézai Méngals are considered to possess an excellent breed of *jambáz* or riding camel. The principal sheep owners in Nushki are the Bájézai Méngals, and in Chágai the Kamarzai and Dah Mardag, who live near Chágai and Dálbandin. The chief cattle breeders are the Amírzai, Sásoli, the Fakírzai Rakhshánis of Padag and the Lángavs of Nushki. The landowners in the District are a comparatively small class, and in 1901 were estimated at 1,275 actual workers (males) and 3,115 dependants of both sexes, all of whom were classed as "land-holders and landholding agriculturists." The majority of these are to be met with in the Nushki tahsíl, and include the Páindzai, Trásezai and Bájézai Méngals; the Bádíni Jamáldíni and Mándai Rakhshánis, and the Hárúni, Lángav and Baréch tribes; and in Chágai the Sanjráni, Notézai, Baréch and Balánoshi Saiads. The majority of the Bájézai Mengals, and the Mákíki and Balgháni septs of the Bádíni Rakhshánis, the Notézai and the Baréch cultivate their own lands



Group of Brahui men.

while a large number of the others employ tenants. POPULATION.

Commerce accounted, in 1901, for 141 actual workers and 152 dependants, but these figures only referred to the stationary commercial population, and did not include the large number of transfrontier men who are engaged in the wheat, wool and *ghí* trade between Garmsél, Shoráwak and Nushki, or the indigenous tribes who are employed in the carrying trade (*kárwáni*) between Khárán and the District. No reliable figures are available in connection with the numbers thus employed.

The artisans belong chiefly to the Loris of the Sarmastánri section and for the most part are to be found in the Nushki tahsíl, where they work as blacksmiths, carpenters, bards and musicians.

The women besides helping in agriculture occupy their spare time in making felts, felt coats, rough carpets and earthen pots. The poorer classes make their own sandals (*chawat*) from raw hide or (*swáth*) and mats from the dwarf palm.

Social life and social precedence.

With all Bráhuis and Baloch, social precedence takes a more definite form than among the Afgháns, and the Bráhui and Baloch tribes of the District are in no way behind their neighbours in exacting a rigid observance of the social duties. Each tribe has its head or chief, whose position is unassailable, and within each tribe the precedence of each section, division and subdivision is marked and defined, and the head of each such group takes precedence strictly in the order of his group. Owing to their proximity to the Persian border, the tribesmen have also imbibed many of the notions of Persian etiquette, and the smallest and least important *malik* has the most exaggerated idea of his *izzat* or personal dignity. This question of *izzat* is perhaps more marked than in other parts of Baluchistán. The members of the Sardár Khéls or families of the chiefs have a recognised social position, and it is considered as an honor to marry into these

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families. The tribesmen endeavour to intermarry among their own septs, or among septs of a similar social status among other Baloch or Bráhui tribes, but the poorer classes do not object to give their girls in marriage to men of out-side tribes, and this action does not entail any social stigma. The tribesmen do not inter-marry with the Loris or the menial classes, and, as elsewhere in Baluchistán, persons following the occupation of artisans are always placed at the bottom of the social scale. The Baloch custom of taking and giving the news *(hawál)* prevails in all parts of the District, and the manner in which it is conducted is in accordance with the strictest social etiquette.

As much importance is attached to the procedure, a brief description of the same may not be out of place and is as follows:—When a newcomer arrives at a place where several members of a tribe are assembled, he offers the *salámalaik* or "peace be with you," and is answered only by the person highest in rank, who replies *wá-aleikamussalám* or "with you be peace" and adds formal enquiries *jor-us, shar jor-us* etc., concerning the health of the new arrival and his relations. The others present then welcome the new comer. The highest in rank next asks permission of all present to take the news. If the new arrival is of inferior rank, he merely says *hawálaté* ("give your news,") but if the man is an equal or of superior rank the remark is prefaced by '*mehrbáni ka*' ("do us the favour.") The newcomer thereupon asks for formal leave to speak and gives the news when permission has been accorded.

Hospitality.

Hospitality to all comers is still considered as one of the most important obligations of the tribesmen, but, owing to the extreme poverty of the majority of the people, the duty is, in practice, confined principally to the chiefs and richer men, and the ordinary people content themselves by entertaining their friends and acquaintances.

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The great increase in the number of travellers consequent on the opening out of the country and the establishment of the trade route and the general rise in prices have also tended to check the ancient custom of indiscriminate entertainment.

The old time hospitality practised by the chiefs in former days is well illustrated by the following account given by Pottinger* of his reception near Nushki by the Rakhsháni chief in 1810.

"The Sardár or chief of the *tooman* (*tuman*) was away from home, and the Belooches, who were crowded about us, began to be rude and troublesome. In this dilemma we were cogitating what we were to do, when a man, who from his dress we took to be a Persian, advised our going to the *mihmán khánu*, or house for guests. "There," said he "you will be safe and unmolested and when the Sirdár comes back in the evening, he will furnish you with a guide. We adopted this plan, and the change of conduct in the people was instantaneous, for, though still curious to discover what we were, they became attentive to our wants and comforts, spread a carpet, brought pillows from the Sirdár's house for us to rest upon, and, in short, from the moment we entered the *mihmán khánu* appeared to respect us as the guests of their chief, and entitled to all the Beloochee right of hospitality; nor was this confined to ourselves and people, for a man was also produced to tend our camels out to graze.

"The *mihmán khánu* was a *ghedán* of wickerwork, the roof covered with black *kummul* or blanket, excessively cool and refreshing to us, who had been sitting for three hours in the red sand exposed to a noontide sun. We laid aside our arms and lay down to sleep, having no longer any fears either on account of our property or persons. About sunset they sent to us from the Sirdar's, a tray of hot bread with a wooden bowl full of *dholl* (*dâl*) or peasoup,

**Pottinger's Travels in Baluchistán*, 1810.

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and shortly after we had dined, the chief himself came to visit us. When the usual ceremonials of embracing were gone through, he began by expressing his surprise at our not having brought a letter to him from Kalát or Kuch Gandáva, which latter province he concluded, as a matter of course, we had visited; declaring it would be out of his power, as he valued the Khán's friendship, to assist us in escaping (for he had no doubt we were followed by some person), and hinted at our being the sons of Rohoollah Bég the Bábee merchant; 'however' continued he, 'you may make yourself easy, and I shall feel it my duty to protect you so long as you choose to remain with me.'

* * * * * * *

"An event occurred this morning, which will shew how inherent the spirit of hospitality is in these people. One of our Hindustáni servants had begun to bake some cakes, when he was discovered by the Belooches who called out 'What! are you going to disgrace our *tooman*? Cannot Eidal Khán (the Sirdár's name) find food for his guests.'
"The man explained to them, that it was his mistake from not knowing their customs, on which they were quite pleased, but told him, that though they lived in a desert and were a poor set they had once entertained Nusseer Khán and his army for five days so profusely that he ever afterwards called them the *Dil Kooshás*, or open-hearted, i.e., generous."

The method described above is that which is still in vogue among the tribesmen when entertaining their guests, and though, as already stated, open hospitality is not meted out in the case of all strangers, the duty nevertheless imposes no small tax on the resources of the chiefs and headmen, as it is a matter of etiquette among men of standing to be accompanied on their travels by as many followers as possible, the number of such retinue being accepted as an indication of the importance of the master.

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Co-operation among the individuals and groups.

It is customary for the tribesmen to raise subscriptions among themselves on certain occasions, the system being known as *bijjár*. Such subscriptions are raised on the occasion of marriages (*barám*); circumcisions (*chal buri*); when fines and compensation for blood have to be paid; or when an individual has been reduced to poverty owing to unforeseen circumstances. These contributions are entirely voluntary and are regarded in the light of a debt of honour, to be discharged if the donor ever has to demand *bijjár* himself. In former times it would appear to have been the custom for the rich and powerful to demand *bijjár* from their poorer brethren as a right. When a death occurs it is usual for the neighbours and friends to make some small presents (*pursi*) to the relations of the deceased.

Hashar.

Another method of co-operation is known as *hashar* or *ashar*, in accordance with which all the villagers and friends are expected to come forward to help a neighbour, who wishes to erect a new embankment (*band*) or repair an old one. Such help is readily given, and when thus employed the men and animals are fed by the person for whom the work is being done.

Gatau.

Gatau is the name given to an ancient custom which permitted travellers to take a sheep or goat for purposes of food from any flock which they might come across. This custom, however, appears to be dying out, or at least is confined to the flocks of friends or relations.

Manner of spending day by a headman, cultivator and shepherd.

A headman who owns sufficient lands to provide for all the needs and comforts of a family, lives at ease. Praying, eating and gossiping fill his day with now and again a little business, such as giving directions to his tenants or shepherds, revenue collecting, or acting as peace-maker or arbitrator in petty disputes among the tribesmen. Most of the cultivators are careless and lazy, and are only fully employed at the time of sowing or harvest. They leave much of their work to their women, and spend most of

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A shepherd is the only man, who leads a hard life. He is off before dawn and only returns to the settlement for a short time at midday, after which he is again absent till evening. When the pasture near the village or encampment is exhausted, he is sometimes absent from the village or encampment for weeks or months where his dole of flour and salt is sent to him and is supplemented by milk from his flock. It is not surprising that his life renders him extraordinarily hard and active.

The nomads generally lead a robust and careless life wandering with their encampments from place to place in search of pasture for their flocks and herds.

Food. The majority of the people have only two daily meals, one in the morning at about 11 A. M. and the other at sunset. The former is called *swára* or *ním roch* and the latter *shám*. Only well-to-do people take a third meal called *niári* in the early morning which in summer consists of bread and curds, and in winter of dates and butter, and occasionally of *kabáb*, or roasted meat. Wheat is the staple food grain, and is made into leavened cakes (*khamíri*) baked in an oven or on a stone griddle (*táfu*). Dates are largely used, as is also in its season the *gwan* or fruit of the *pistacia khanjak* which is eaten both fresh and dry. Before use, it is pounded or either mixed with the wheaten cakes or made into an infusion in which the cakes are steeped. In days of scarcity, a kind of porridge or *dál* is made from the seeds of the indigenous plants known as the *kulkushta* and *mughér* (*Rumex vesicarius*). The majority of the poorer classes eat their bread plain and without relish, but an infusion of *krut* is sometimes used. This is mixed with boiling *ghí* and is locally known as *si íragh*.

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Another condiment is known as *achár*, and consists of onions, turmeric, chillies, coriander, pomegranate seeds, cardamom and cinnamon pounded together and kneaded with flour and made into small cakes. This is considered a great delicacy and is only used on special occasions. Meat is seldom eaten in summer except when the inhabitants of a hamlet combine to buy a sheep, goat or bullock, or when a moribund camel or other animal is killed.

The diet of the well-to-do, and especially of those near Nushki, is becoming more civilized. They eat fowls, eggs, rice and roasted meat (*sajji*), and many of them have taken to the use of green tea.

Milk and its preparations.

Cows are kept by those in good position but the milk commonly drunk is that of goats, sheep and camels. Curds, made with rennet or *panérband* (*Withania coagulans*) form the basis of most preparations including butter and cheese. Butter-milk is also much consumed; next in demand is *krut* or cakes of boiled whey, which are dried and mixed with salt.

Fruit and vegetables.

The principal fruits eaten in the District are melons which are grown in large quantities in the summer months, and dates which are imported from Khárán, and comprise the varieties known as the *humbi*, *múzávti*, *rangino*, *pappo*, *rabi zardán joshanda* and *kahruba*. The last named are cheap, and form one of the staple foods of the nomad tribesmen. Ordinary vegetables are not grown, but the indigenous plants known as the *kulkushta* and *mughér* which have already been mentioned and the *garbust*, *chammar*, *saréshk* and *pochko* are sometimes used as such.

Tobacco.

Tobacco is used generally throughout the District for smoking, chewing and occasionally for snuffing.

Utensils.

The cooking and eating utensils are few and dirty; they usually consist of a tripod (*páe déng*), a stone griddle (*táfu*) an earthen pot (*garo*) a wooden plate (*tás*) used both for

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kneading and eating, and a copper can with a spout (*badni*).

Dress.

The ordinary dress of the nomads and poorer classes consists of a cotton shirt (*kús*), cotton trousers (*shalwár*) white or blue, and a felt cap covered with a cheap turban, the whole costing from Rs. 3 to Rs. 4. To this is added a long felt coat with closed sleeves called *zor* which costs about Rs. 4 or a woollen coat with open sleeves known as *shál* costing about Rs. 6-0-0. On their feet the men wear sandals made of dwarf palm (*swáth*) or of leather (*chawat*), the latter costing about Rs. 1-8-0, and in the winter felt shoes called *sur*. Wooden shoes (*katrak*) are also sometimes worn in the hills.

The better classes wear a muslin turban (*dastár*) 6 to 10 yards long, tied over an Afghán peaked cap (*top*) a shirt (*kús*), reaching to the knee, made of white long-cloth, (*chilwár*) or calico and buttoning (*ghút*) on the right shoulder, and baggy trousers (*shalwár*) often dyed blue. To the above are added a cotton wrapper (*khéri*) for summer wear and a thick cotton wrapper (*khés*) in winter. On their feet they wear Kachhi or Multán-made shoes. The rise in the standard of living is noticeable in the general improvement in the style of the dress of the more wealthy, many of whom now wear good turbans and gold embroidered coats.

The Baloch and Bráhuis have their trousers gathered in at the ankle, while those of the Baréch are loose. With the exception of the Baréch and Sanjráni, whose hair is cut short over the nape of the neck in the Afghán fashion, the majority of the tribesmen wear their hair in long curls.

The domiciled Hindus, according to their ancient custom, usually affect red trousers and a red cap or turban, and their shirt is buttoned on the left instead of the right shoulder; but in other respects their dress both for men and women is similar in pattern to that worn by the tribesmen.

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Women's dress.

Among the Baloch and Bráhuis a woman's dress ordinarily consists of a long shift or shirt *(kús)*, reaching the ankles, and of a wrapper *(gud)*. Drawers are only worn by the Baréch and Sanjráni women. The shifts and wrappers of the better classes are made of silk, and the former are sometimes richly embroidered in front. Among the poorer classes every married woman possesses an embroidered shirt made of silk or some good material, which was presented to her on her wedding day and is kept for special occasions, but for ordinary use a plain garment made of coarse cotton usually suffices. The married women generally wear a red shirt and are further distinguished by wearing ear rings *(dur)*. The ornaments used by the women consist chiefly of cheap silver rings worn in the nose, ears and on the hands.

Hair.

A woman's hair is divided in the centre by a parting taken round the ear, and woven on either side into three plaits which are joined together at the back with a woollen thread *(chotíl band)*. A married woman also wears a short lock of hair on each temple.

Dwellings.

The nomads who form the majority of the population, live for the greater part of the year in the blanket tents known as *gidán*. These *gidáns* are made of goats' hair and generally consist of eleven pieces *(pat)*, the ordinary width of each of which is 3 feet, and the length from 15 to 24 feet. Three of these pieces stitched together form the fly, and two stitched together form each of the four walls *(ikashak* or *péchawál)*. They are stretched over curved wooden poles known as *gindár*. In the front of each *gidán* there is usually a small courtyard fenced in by bushes. A *gidán* costs from Rs. 25 to Rs. 30 and should last for several years. Only the well-to-do can afford a separate *gidán* for their flocks and as a rule the family, lambs and kids all herd together at night in the same tent. *Gidáns* are also used by the villagers during their annual migrations, to which a reference has already been made.

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In the summer the nomads also live in *manahs*, which are huts made of curved sticks covered over with bushes. The villages of Nushki consist, for the greater part, of huts known as *kudís*. These are made of wicker-work mats or rather closely woven hurdles of tamarisk stretched over a frame work of poles and plastered with a thick coating of mud. The floor is sunk in order to give an increased height, which is usually from 7 to 8 feet. The dimensions vary, the larger huts being often 20 feet by 10. Each family has usually three huts, one of which is the *ura*, or the family dwelling place, the second is known as the *kharási* or shed for cattle, while the third (*bai*) is used for storing grain and fodder. These huts are usually made by the people themselves and the cost of the material is small. They are generally made facing the south in order to avoid the cold north winds in the winter.

In Chágai the houses are usually made of mud.

No beds or lamps are ordinarily used, and the household furniture is scanty, consisting of a few carpets, (*kont*); quilts (*léph*), pillows (*bálisht*), skins for water and milk (*izak*) some cooking pots and a hand mill, (*nuskhal*).

Disposal of the dead.

The method of burial usual among Muhammadans is in vogue, the body being laid north and south with the head inclined to the west. The *mullá* scratches the *kalima* on a piece of pottery or a stone which is placed under the head. In the western portion of the District, the nomads smear the bodies of small infants with fat before burial and in the same part of the country when the services of a *mullá* are not available, the body of a grown up person is buried in its ordinary clothes without a shroud. When a person dies of heat or of thirst in the desert, his body is interred on the spot where it is found, and no alms are distributed. Such persons are known as *shahíds* or martyrs. The usual term of mourning lasts for seven days in the case of all persons over seven years of age; and

during this period visits of condolence are received and prayers are offered for the soul of the deceased. Persons coming to condole with the family bring a sheep or a small sum of money as an offering (*pursi*), and are entertained by the bereaved family. On the last day of the mourning sheep are killed and alms (*khairát*) are distributed. The mourning in the case of a child under seven years lasts for one day only.

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Amusements, festivals and shrines.

The indoor games that are most popular are the *chhallavpúch* and *katár*. The latter somewhat resembles chess and is played with 9 or 18 pebbles or pieces of wood known as the *nuhbandi* or *hasht-dah bandi* respectively. The game of *chhallavpúch* is played by two sides; the players on one side are covered with a sheet and one of the players conceals a ring (*chhallav*) in his hand. The sheet is then removed, and the other party are called upon to guess where the ring is. This proceeds alternately until one side has made twenty-one correct guesses.

The most popular out-door amusements are wrestling; *khumbthili*, which is played with bat and ball; and *ýí*, a kind of prisoner's base. Racing, tent pegging, and dancing (*chháp*) are also indulged in on festive occasions such as on the *Id* and at marriages and circumcisions. Coursing is much practised by the better classes in Chágai. Singing is also a popular amusement and *líko* or love songs are sung by all classes. Ballads commemmorating the tribal heroes and their brave deeds are also recited by the Loris on festive occasions.

The musical instrument most popular with the shepherds is the *nal*, which is made of *nár* and has four holes each at an interval of one and a half inches.

Festivals.

The only festivals of consequence are the two *Ids* known as the *mazane* and the *kasane Ids*, which are celebrated at all the villages and encampments.

The Hindus of Nushki also make an annual pilgrimage to the Jowarkín hill, which is about 14 miles from Nushki

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on the occasion of *Wesakhi* festival.

Shrines.

There are several well known shrines in the District, which are held in great veneration by the local people. The most important of these is the shrine of Saiad Balá Nosh near Chágai. This shrine is erected to the memory of Said Balá Nosh or Sháh Balédár, as he is sometimes called, who was a disciple of the famous Khwaja Makdúm of Makran, and came to Chágai in the reign of Sháh Shuja. The Saiad had the reputation of being able to perform miracles, and his shrine is visited in the spring not only by the people of the district, but also by large numbers of Afgháns from Shoráwak and Garmsél.

Pír Sultán.

Another well known shrine in the Chágai tahsíl is that of Pír Sultán, which has thus been described by Captain (now Major Sir Henry) McMahon.*

"This Sultán, who also has given his name to the whole range of Koh-i-Sultán, is an ancient mythical celebrity who is said to have been buried in the vicinity. His full name is Sultán-i-Pír-Kaisar, and he is the patron saint of Baloch robbers. This may account for the Koh-i-Sultán having a very bad reputation as a robber resort." Mr. Vredenburg† also gives the following account in his geological report of Baluchistán :—

"The Koh-i-Sultán derives its name from that of the most celebrated of all the *Pírs* or saints who form such a curious feature in the religion of the tribes that inhabit Baluchistán. With reference to the "Pír Sultán" or "Pír Kisri," Ferrier, with great justice says, of the Baluchis, that "although acknowledging that Mahomet is a prophet there is another they consider of much greater importance than he, and second only to God, with whom they sometimes confound him." The great cliffs of agglomerates of the Koh-i-Sultán produce the most wonderful echoes, a word being repeated distinctly in some places

* *Geographical Journal*, Vol. IX, 1897.

† *Memoirs of Geological Survey of India*, Vol. XXXI, part 2.

as many as five times. To these echoes I would attribute a curious sound which is supposed to be that of a war-drum or "*nakára*" played by the Pír Sultán during certain nights. This performance is supposed to take place on the summit of Shandi-Koh, one of the peaks of the western circle of cliffs. I heard this sound on one occasion when I was encamped at Washáb a short distance east of Shandi-Koh. It is a clear, high pitched, slightly vibrating sound, not unlike the distant roll of a somewhat metallic drum, swelling till it becomes astonishingly loud, and it is heard for hours at a time in the dead of night. The night when I heard this sound was a very clear night. It may be that when there is very little wind in the valley, the noise of the breeze on the hill tops is exaggerated by the echo." POPULATION.

The Koh-i-Sultán and all the minerals which it contains are looked upon as the special property of the Pír. It is also considered unlucky to kill snakes in the neighbourhood as these are supposed to be under the Pír's protection.

Sheikh Husain.

The shrine of Sheikh Husain is situated in the Nushki tahsíl about 6 miles from Mal. He was the son-in-law of Saiad Balá Nosh, and according to tradition the Sheikh and his wife were deserted by the Saiad in the Régistán plain, where they came across a wild ass which conducted them to the spot where the shrine now stands. A spring of water burst out of the ground, and shortly afterwards the saint's wife gave birth to a son who came out of her mouth in the shape of a flower. This son was called Phul Choto and a shrine in his name has also been erected on the Afghán border. The resting place of the Sheikh and his wife are marked by two separate domes, and the shrine is much visited by the people from Khárán and also by many Bráhuis from Kalát.

Major Benn has given the following account of another legend which is connected with the shrine:—"At one time the Moghal Sardárs swept down upon this portion of

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the district and made an attack upon the hill where the shrine now stands. On their approach the holy Sheikh and his family were made to disappear into the ground and were thus saved from destruction. At the same time the attacking party were all turned into stones which can be seen standing round the tomb to these days."

Minor shrines.

Among the other shrines of importance may be mentioned those of Saiad Mahmúd or Zinda Pír, Saiad Khwája Ahmad and Chilgazi, all in the Nushki tahsíl.

The first named is some 40 miles east of Nushki, and it is customary for each caravan passing through to make a small offering from each load. This is done in order to obtain the favour of the Pír, who on a former occasion, is said to have turned a caravan of dates into salt when displeased with the owners.

Saiad Khwája Ahmad was a Pishín Saiad who came to Khaisár some eight generations ago and miraculously increased the supply of the Khaisár stream. His shrine is situated close to Nushki.

According to a local tradition, Chilgazi was an Afghán saint who eloped with a girl from Shoráwak, but on being pursued by her relatives descended 40 yards (*chihil gaz*) into the earth with the girl and thus escaped their vengeance.

A stone wall enclosure near Kishingi is also celebrated for curing toothache and pains in the stomach. The sufferer has merely to plant a twig in the consecrated ground and immediately becomes free from pain. Nasír Khán I is said to have offered prayers here on his return from Seistán.

Names and titles.

Both among girls and boys many names are to be found, which are possibly of a totemistic origin. They are those of animals or plants such as Malachi (locust), Gwani (pistachio), Gazi (tamarisk) and Shinzi (camel thorn). In other cases, the denominations used for men

are those usual among Muhammadans. In the case of women, names beginning or ending with Bíbi, Khátún or Náz are popular, such as Bíbi Naz, Dur Khátún and Gohar Náz, etc. Abbreviated forms of the long names given to men such as Tájo for Táj Muhammad, Shéro for Shér Muhammad, Pírak for Pír Muhammad etc., are, frequently used.

No ceremonies are observed on the birth of a girl. The birth of a son, on the other hand, is marked with general rejoicings and he is named on the seventh day after consultation with a *mullá*. The custom of naming the son after his paternal grandfather is common, and is based on the consideration that it serves as a memorial.

The term *khán* is used as a suffix, and among the Baréch Afgháns also as a prefix, when it is considered a mark of honour. The title of *malik* is a recent innovation, and is applied to the headmen of villages recognised as such for the purposes of revenue and administration. The term *sardár* is locally restricted to the heads of the tribes such as the Méngal, Rakhsháni and the Sanjráni, but these men are officially addressed as *mír*, the title of *sardár* being reserved for the heads of the more important tribes which form the Bráhui confederacy. Among the titles possessing a religious significance may be mentioned the suffix *sháh* which is given to Saiads only. The term *mullá* is applied to men who have some pretensions to religious learning, while the descendants of well known *mullás* are distinguished by the title of *Sáhibzáda*.

Rules of honour.

A knowledge of the rules of honour (*mayár*), which prevailed among the tribesmen before the British occupation and which still influence their actions to a great extent, is not without importance from the point of view of administration, and, although they are similar in most essentials among all Baloch and Bráhui tribes, it may not

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be out of place to repeat them. It was incumbent on a tribesman :—

(1) To avenge blood.

(2) To fight to the death for a person who had taken refuge with him. The refugee was called *báhot* and was entertained by his protectors so long as he remained with the latter.

(3) To defend to the last property entrusted to him.

(4) To be hospitable and to provide for the safety of the person and property of a guest.

(5) To refrain from killing a woman, a Hindu, a menial or a boy who had not taken to trousers.

(6) To either pardon an offence on the intercession of the women of the offender's family, or to dismiss the women by giving each of them a dress as a token of honour.

(7) To refrain from killing a man, who had entered the shrine of a *pír*, so long as he remained within its precincts.

(8) To cease fighting when a *mullá,* a Saiad or a woman, bearing the Korán on his or her head, intervened between the parties.

(9) To punish an adulterer with death.

System of reprisals.

In pre-British days if the parties were of equal position and influence, blood was avenged by blood; but if the relations of the deceased were weak, the matter could be compromised by the payment of compensation. In cases in which the parties belonged to the same tribe and the offender himself was out of reach, his nearest relation was slain. If, however, the offender belonged to another tribe, it was incumbent on the aggrieved party to kill one of the section, clan or tribe to which the former belonged. Such a system was liable to indefinite extension, and led to interminable blood feuds which could only be checked if the authorities or friends intervened to arbitrate. The

losses on either side were then reckoned up and compensation was paid to the side which had lost most. POPULATION.

Blood compensation.

Might was right in days gone by and the position of the party aggrieved was the principal factor in determining the price to be paid for blood; hence the compensation for a *mullá*, a Saiad or a person belonging to *sardár khél* or leading family, was ordinarily double that payable for a tribesman.

Among the Nushki tribes, the general rate, as fixed in the time of Nasír Khán I, was 2,800 kábuli rupees; and in Chágai a sum corresponding to about Rs. 1,000 in British money together with the sword and gun belonging to the murderer. But cash payments were rare, and land, camels, slaves and girls were usually given in exchange, a girl for this purpose being valued at Rs. 500.

The rate now prevailing in Nushki is Rs. 1,500 which is paid partly in cash and partly in kind.

Compensation for serious injuries was variously estimated in different parts of the District; in Nushki the loss of an eye, hand or foot was counted as equivalent to half a life. The compensation for the loss of a tooth was about Rs. 100.

Afghán refugees.

No Afghán refugees have settled permanently in the District, but Sardár Ayáz Khán, and his brother Sardár Sháh Nawáz Khán, Durrani, the sons of the late ex-Wáli of Kandahár have recently purchased some land near Padag which is being cultivated by their tenants.

CHAPTER II.

ECONOMIC.

AGRICULTURE. General conditions.

The general conditions of the country are suited to pastoral rather than to agricultural pursuits, and in comparison with the aggregate area of the District the land under cultivation is trifling. Although agriculture has developed since British occupation and is gradually increasing, it is doubtful whether any very considerable extension is possible owing to the barren nature of the greater part of the country, the limited supply of perennial water and the scanty rainfall. In the neighbourhood of Nushki, Chágai and Dálbandin there are large tracts of rich alluvial soil which could be brought under dry crop cultivation, but such crops are precarious and must always be circumscribed by the uncertain rainfall. As it is, the area of dry crop cultivation in favourable years comprises about nine-tenths of the total cultivation of the District.

The chief sources of irrigation are the Khaisár stream, *kárézes*, and springs, and the hill torrents which carry flood water to the *khushkába* tracts. The principal hill torrent in Nushki is the Pishín Lorá, locally known as the Bur *nullah*, while in Chágai the chief *nullahs* are the Mahiyán, Shibián, Búlo, Chaspar and Ráhio.

The best known tract for *khushkába* cultivation is the Dák plain which is owned by the Bádíni, the Jamáldíni (including the Mándai) and the Méngal tribes. Each tract in this vast alluvial plain has been divided, and

bears a distinctive name, the following being the principal :— AGRICULTURE.

(a) Dashtak Bádíni, Sandúri, Dárdam, Dráz-Kash, Siáhdam and Sordam, belonging to the Bádíni Rakhsháni.

(b) Zangi Náwar, Chársar, and Dashtak Jamáldíni, belonging to the Jamáldíni Rakhshánis.

(c) Owned jointly by the Jamáldínis and the Méngals :—Gazk, Sháh Díwána, Kulai ; and Janán.

(d) Landi, Bédi, Khéshki, Robah, Lidi, Hakím wál, Mazár-wál, Tania Rég, Sangín, Sakhtak and Buti, owned by the Zagar Méngals.

The other *khushkába* lands in this tahsíl are in the neighbourhood of Mal, and comprise the Sarmal, Jahlmal, Dédár, Gomázgi, Bundkhi, Jabár, Khudáband, Régtalli and Sohr Rég tracts. In the Chágai sub-tahsíl the best dry crop lands are those known as Jesa, Bashiri, Sháh Salár, Brábi, Zarála, Dálbandin, Pishak, Karodak, Bazgastar, Hushki Nali and Kunrak ; of these Hushki Nali is owned by the Fakírzai Bádínis and Dálbandin by the Notézais, while the remainder belong to the Sanjránis.

Soil.

The soil of these tracts is alluvial and for the most part extremely fertile. The best is a light loam called *matt* which is found in the greater part of the Dák plain and in the Bághak, Mal, and Chágai tracts. It requires less water, retains moisture longer and is suited for all crops. Next comes the *réki* in which, as the name implies, sand constitutes the predominant element ; this is considered suitable for *juári* and melons only. Others are the *daddo* a hard stony soil, and the *sor* which is impregnated with salt ; both of these are inferior. *Khad* is the local name given to ground in the neighbourhood of the sites of old villages or encampments where manure has been deposited.

Rainfall and system of cultivation in relation thereto.

The rainfall of the District is scanty, the average for the four years from 1901 to 1904 being about 4½ inches. This rainfall is not only necessary for the cultivation of

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the dry crop tracts, but also largely affects the permanent sources of irrigation.

The Khaisár (Nushki tahsíl) is the only stream with a perennial supply of water, and except in the neighbourhood of Nushki and Bághak, the area of irrigated cultivation is inconsiderable. The cultivation on unirrigated lands is dependent on the floods brought down by hill torrents. These floods occur chiefly in the winter and the early spring; the former being the most important. *Juári* and melons are the chief crops sown after the spring floods. Table III, Vol. B, shows the proportion of the irrigated and unirrigated areas, and the sources of irrigation.

Population engaged in and dependent on agriculture.

The inhabitants of the Nushki tahsíl show a greater aptitude for agriculture than their neighbours in the western portion of the District, who by custom and choice are addicted to a nomadic life. None of them, however, are good agriculturists, though they have much improved in this respect in recent years. Of the total population of 15,689 censused in 1901, 10,602 or about 68 per cent. were classed as flock owners or dependants, and 4,390 or about 28 per cent. under the head of "Agriculture." Of the latter 1,275 were actual workers and 3,115 dependants. The tribes which are chiefly engaged in agriculture in the Nushki tahsíl are the Jamáldíni and Bádíni Rakhshánis, the Méngals, the Baréch and the Lángavs, and also a mixed class of tenants known as the Bato. In the Chágai tahsíl the Baréch, Lángav, and Notézai and a few sections of the Muhammad Hasnis are the principal agriculturists.

Sowing and harvest times.

The principal harvests are the *khushkbar* or spring harvest, which includes the crops sown between October and January and reaped in the months of May and June; and the *sauzbarg* or autumn crop sown between April and June and reaped in August and September. The principal crop of the spring harvest is wheat, but a small quantity of barley (*Hordeum vulgare*) is also grown. The autumn crops comprise *juári* (*Andropogon sorghum*), *chína* (*Panicum*

Italicum), *mung* (*Phaseolus mungo*) and melons. The spring crop is the most important and the one on which the indigenous population of the eastern part of the District chiefly depend for their food. The central and western portions do not grow sufficient grain for their needs, and, even in ordinary years, the inhabitants are compelled to import the bulk of their wheat from Garmsél.

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The cultivators' busiest seasons are from October to December and from January to March, when they are employed in repairing the *bands* and embankments and in ploughing and sowing for the spring harvest, and again in May and June when they are engaged in reaping the harvest. The months of March and April are periods of comparative leisure when, as already stated, the majority of the villagers migrate to the sandhills with their flocks and herds.

Statistics of the area under each crop are not available, but it will be seen from table XII in Vol: B that the average amount of the annual Government share of wheat in the Nushki Tahsíl in 1900-1 and 1901-2 was 3,912 maunds. In 1902-3 the amount realised in the two tahsíls was 675 maunds, and in 1904-5, 3,602 maunds. The share of *juári* for the years 1902-3—1904-5 was 263 maunds and 95 maunds respectively.

Principal crops. Wheat.

Wheat represents about 95 per cent. of the total produce of the District. The variety preferred by the *zamíndárs* is of reddish colour known locally as the *dahyak*. After a wheat crop the land, whether irrigated or unirrigated, is allowed to lie fallow for one year and sometimes in the case of poor soil for two years. As a rule fallow land is used for all crops and the same land is never used for a double crop in the same year.

Sowing in irrigated land.

Irrigated land is watered for wheat in September; it is then ploughed (*langár*) and harrowed (*máhla*). The seed is usually sown in the beginning of October, a drill (*náli*)

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being generally employed. An early sowing is known as *máhlav* and a late crop as *páchálav*. In the former case the seed germinates between 8 and 10 days, and in the latter between 10 and 20 days. The first watering (*shom prosh*) is given when the plants are about 6 inches above the ground. About the end of January the green crop is either cut for fodder or is allowed to be browsed by sheep and goats. This cutting or browsing improves the subsequent yield. About 20 days later a second watering is given. The third watering is given when the ears are formed (*gabh*), and the fourth when the corn begins to appear. At this stage an abnormal supply of water whether from artificial sources or from rains causes rust (*surkhi*). The harvest (*lábh*) takes place in May or June.

Threshing.

The general method followed in threshing (*gowat*) is that used in India. A long pole (*girdu*) is erected in the centre of the threshing floor and oxen are driven round it to tread out the grain. Another method, known as *tsapar*, is used by the Baréch only, when in addition to treading out the grain a weighted hurdle or bush is also dragged over the corn.

Cultivation in unirrigated land.

The time of the cultivation of wheat on unirrigated lands depends on the winter rains, and the seed can be sown as late as February. Seed is also sometimes sown before the winter rains at the time of the first ploughing, the system being known as *garat*. The seed sown in dry lands often produces two crops; in the first year from the seed that has been sown, and in the second year from seed which has fallen from the standing crops. This second crop is called *kharod*.

Barley.

The cultivation of barley is comparatively small, and the method of the sowing is the same as that of wheat.

Juári.

Juári, or *zurrat* as it is locally known is the principal autumn crop. There are two varieties, the *pachko* or white and the *boringo* or red variety, the latter being considered the superior. The furrows (*pal*) are about 3 feet

apart and the seed is sown with a drill (*náli*) generally about the month of April. The seed germinates between 7 to 10 days and on its first appearance is called *kuntah*. In 15 or 20 days when it shows two or three leaves, it is known as *dotáko* or *sehtáko*. Two waterings are ordinarily considered sufficient, and the first is given in a month's time when the stalks are about 2½ feet above the ground (*karapank*). The second watering is given when the ears begin to form, and the crop is harvested in August or September. In irrigated land the stalks are cut and stacked for fodder, but in dry crop areas the heads alone are gathered. The process of threshing is the same as that of wheat but camels are usually employed instead of bullocks. *Dast khand* (or digging with the hands) is a local term applied to lands which have been prepared by hand by those *zamíndárs* who cannot afford to keep bullocks.

Subsidiary food crops.

China or *prish* (*Panicum Italicum*), is only cultivated in very small quantities and the sowing is usually commenced in May. The crop is harvested in about 40 days. *Mung* (locally known as *másh*) and *kunjid* are also occasionally sown in the *juári* fields. The cultivation of lucerne has only recently been started in the neighbourhood of Nushki.

Fruit and vegetable production.

With the exception of melons, no fruits are grown by the local people. Vegetables are also not cultivated, but their place is taken by certain wild plants such as the *maghér*, *garbust*, *sundam*, *pétark*, *zampád*, *chamar*, *sríshkoh* and *khambo*.

Gardens have been started at Kishingi, Badal Khán *káréz* and Bághak with fruit and other trees imported from Quetta, but up to the present (1905) they have not been a great success.

Pálézát.

The cultivation of cucurbitaceous crops (*pálézát*), which include various kinds of sweet melons (*galav*) and water melons (*kútikh*), is carried on to a considerable extent in

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both the Chágai and Nushki tahsíls.

The two best known varieties of the sweet melons are the *gari galav,* which has a green skin and the *khaburza* which is of a yellow colour. The water melons are of three varieties known from the colour of their skin as the *maun, habshi* or *asghari* (black), the *garri* (green), and the *piun, malali* or *kághzi* (white). The black variety is considered the best, as it has a sweet and pleasant flavour, hard skin and can be preserved for a considerable period. Melons are grown both in irrigated and dry lands, the seed being sown with a drill a few days before that of the *juári.* The seeds germinate in about 10 days, when they are known as *angúri.* When the leaves appear the plant is known as *dotáko, chártáko* and then as *kapoto,* which last stage is reached in about a month. The field is then watered. About 20 days later the plant begins to creep on the ground; it is now known as *chilko* and the blossoms also begin to show. When the blossoms drop, small fruits (*band*) are formed. These *band* or fruit are buried in the ground, and the field is watered a second time, the watering being repeated at intervals of 15 to 20 days until the fruit is ripe. Before plucking the first fruit, it is usual for the owner to mark the occasion by distributing dates as alms or by killing a sheep or goat as a sacrifice. The fruit lasts from July to September. In Nushki the best melons are grown at Badal Káréz, Inám Bostán and Dédár, and in Chágai on the Lijji Káréz and the Bishri *Khushkába.* Large quantities of melons are also imported into Nushki from Shoráwak. The Kandahári or *jowaki** system of growing this fruit has recently been started near Nushki.

Rotation and out-turn.

There is no regular system of rotation, but irrigated lands are usually allowed to lie fallow for one or two years. No rule can be observed in the dry crop areas as

*Note.—A detailed account of the *jowaki* system is given in Chapter II of the Quetta-Pishín District Gazetteer.

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these depend on the floods, and those tracts are chosen which have received the largest quantity of silt and moisture. According to crop experiments made in the Nushki tahsíl during the spring harvest of 1905, the average produce of wheat per acre is 6 maunds 32 seers, the highest yield being 8 maunds to the acre on land irrigated by the Khaisár stream. The Chágai cultivators calculate that the out-turn of wheat and *juári* should amount respectively to ten and eight times the quantity of the seed sown.

Extension of cultivation.

No reliable data are available, and it is difficult to say to what extent cultivation has actually increased since British occupation. But the protection afforded against foreign raids and the cessation of internal feuds have undoubtedly enabled the tribesmen to devote more time to agriculture. The sources of irrigation have also been increased. Writing in 1898-9 Captain Webb Ware said that; "when I first visited Chágai in 1896-7 there were only four *kárézes* in existence, this number increased to six in 1897-8, and to 12 in 1898-9." The tahsíldár of Nushki estimates (1905) that the area of cultivation in the tahsíl has doubled itself since Nushki was taken over from Kalát, but adds that the last few years of drought have tended to check further extension.

Agricultural implements.

A list of the implements used, with the vernacular name of each will be found in appendix IV.

The principal implements include the plough which is known as *langár*, the plank harrow or scraper (*kén*) with which embankments are made, and the clod crusher or log (*máhla*) used for breaking clods and smoothing the ground. Among minor implements may be mentioned the *ramba* or weeding spud, the *kodál* or mattock; the *dal* or wooden spade worked by two men with a rope for making small embankments; the sickle (*lashi*) for reaping; four or two pronged fork (*chár shákh* and *doshákh*); the *dalli* or wooden winnowing spade, and the *tafar* or axe. These

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implements are made by the local artizans (Loris), and there appears to have been no appreciable improvement in recent years.

Appendix V contains a list of revenue and agricultural terms.

Agricultural advances.

The Land Improvement Loans Act, XIX of 1883, and the Agriculturists' Loans Act, XII of 1884, have not been applied to the Baluchistán Agency, but the question of their extension is under consideration (1905). Rules to regulate such advances have been promulgated under the executive orders from the Government of India, and are embodied in the Baluchistán Takávi Advance Manual 1902. The annual grant for the whole Agency is Rs. 60,000, of which Rs. 9,000 are allotted for the Chágai District. The Assistant Political Agent is authorised, within the limit of his grant, to sanction advances not exceeding Rs. 1,000 in each case, and the Revenue Commissioner up to Rs. 3,000, the sanction of the local Government being necessary for advances in excess of this amount. The ordinary rate of interest is one anna in the rupee or 6¼ per cent. per annum, but in a case in which the Assistant Political Agent is satisfied that the project is sound and is likely to lead to an increase of revenue, he is at liberty to grant the advance free of interest. In the case of tribes living on the immediate border, the Assistant Political Agent has a wider discretion in the grant of advances free of interest up to a limit of Rs. 1,000. The advances can be granted either for works carried out by the Assistant Political Agent himself or by the agricultural population.

During the years 1899-1900 to 1904-05 advances amounting to Rs. 18,800 have been granted for improvement of land and sources of irrigation, and Rs. 15,332 for other agricultural purposes such as the purchase of seed and bullocks. The recoveries during the same period were Rs. 8,270 and Rs. 11,270 respectively. Details by

tahsíls for each year are given in table IV, Vol. B. The larger portion of the advances (Rs. 27,382) has been used in the Nushki tahsíl where there is a large agricultural population. The advances are ordinarily given for sinking new *karezes*, for repairing and improving old ones, and in times of drought and scarcity, for the relief of distress and the purchase of seed and cattle. Repayments are made generally by half yearly instalments. Major Benn, Assistant Political Agent (1905) makes the following remarks in connection with these grants. "The *zamíndárs* of the Nushki tahsíl readily come to avail themselves of Takávi advances and are always anxious to increase the supply of water. The *zamíndárs*, however, of the Chágai sub-tahsíl are very backward and in spite of the explanations which are given to them of the advantages to be gained by Takávi advances, they do not accept them with any great willingness. This is due to the fact that being Sanjránis and chiefly *maldárs* (flock-owners) they are an unenterprising lot. As a rule not much objection is offered to the payment of instalments when they fall due." AGRICULTURE.

The agriculturists of Nushki seem to be considerably involved (1905), and the chief cause of their indebtedness is said to be due to the recent seasons of scarcity and drought. They are poor cultivators and naturally indolent, and at the same time their standard of living has undoubtedly risen within the past few years. From a rough estimate made by the District authorities (1905) it appears that the liabilities of the tribes in the Nushki tahsíl amount to about Rs. 86,500, as shown in the margin. The chief creditors are the local Hindu shopkeepers. The rate of interest depends on circumstances and on the position of the borrower, but the average rate is about 25 per cent. per annum. If the Agricultural indebtedness.

Méngal ...	...	Rs.	30,000
Jamáldini	...	„	25,000
Bádíni ...	...	„	20,000
Mandai ...	...	„	10,000
Lángav ..	...	„	1,000
Muhammad Hasni ...		„	500

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loan is not repaid at the next harvest, compound interest is charged. Credit is also given for goods purchased from time to time, the price being paid at the next harvest and interest being charged at the rate of 25 per cent. The loans are ordinarily entered in the money-lenders' books, and in cases of large sums the entries are attested by the village or tribal headman. Lands are usually mortgaged with possession, the mortgagee arranging for the cultivation, the payment of Government revenue and other demands, and retaining the landlord's share as his interest until the debt has been paid off. Advances of grain are also made by Hindus, and occasionally by *zamíndárs* to each other, the price of the grain being fixed at the time of the advance, and the debt being repayable at the next harvest in cash or in kind. When advances are made for seed grain, it is usual for the lender to receive one-third of the crop at the next harvest after the Government share and the wages to the labourers have been deducted. The nomads of the central and western portion of the District are said to be generally free from debt.

Domestic Animals. Horses.

Masson, who visited Nushki in 1840, speaks of a special breed of horses locally known as the *galgazi*; but these appear to have completely died out, and at the present time only a few ponies are kept by the chiefs and richer men. The other domestic animals are camels, bullocks, donkeys, sheep and goats. Nearly every family of nomads possesses a sheep-dog; and grey-hounds *(tázi)* are kept by the well-to-do and more especially by the Sanjránis of Chágai. According to Masson the district in 1840 possessed "a variety of the *tázi* or grey-hound of much repute in Baluchistán and prized in more remote countries."*

* *Narrative of a journey to Kalát* by Charles Masson, 1843.

The following table shows the estimated number of camels, donkeys, cattle, sheep and goats in each tahsíl in 1905:— AGRICULTURE.

Tahsíl.	Camels: male and female.	Donkeys.	Bullocks and cows.	Sheep and goats.
Nushki ...	1,800	250	500	6,000
Chágai ...	3,500	350	400	30,000

The number of animals owned by the transfrontier nomads who periodically visit the District is estimated as under:—

Camels, male and female ...	2,160
Donkeys	300
Sheep and goats	11,200

Camels are mostly bred for sale; but they are also used for transport and sometimes for the purposes of cultivation in the dry-crop areas. In both Nushki and Chágai the males are usually sold off as soon as they reach a working age. The principal breeders are the Trásézai and Amírzai Méngals in Nushki; the Fakirzai, Sumalári and Sásoli in Chágai; and the Amírzai Hasanzai and Shérzai in the Western Sanjráni country. Camels are distinguished by their colour, and the following local proverb shows the estimate in which each kind is held: "Buy a *dastall* without seeing it, examine the *khísun* before you buy it, and shoot the *kharun*." The *dastalli* is of a light colour with white markings on the lower part of its forelegs. It is supposed to be able to carry a load of 7 maunds and is usually priced at about Rs. 70. The *khísun* is of a reddish colour and is chiefly used for transport, its average price being from Rs. 50 to Rs. 60. The *kharun* is dark with black points and is looked upon as an inferior animal; it is locally considered as the "Lori" among camels, and can be bought for about Rs. 40. There is another variety called the *piúna* or white camel which, being known as the Saiad among camels, is not hardy but a poor worker. The *jambáz* or an inferior kind of riding camel is also bred in the district. The best of this breed are owned by the Camels.

AGRICULTURE. Amírzai Trásézai Méngals, and are known as *hote*. Their usual price is from Rs. 80 to Rs. 150.

Donkeys. Donkeys are chiefly kept by the nomads for the transport of their household effects and for fetching fuel and water. They carry about 2 maunds, and their price varies from Rs. 15 to Rs. 30. The Hindu traders generally keep Makráni riding donkeys which are valued from Rs. 60 to Rs. 80.

Cattle. The richer *zamíndárs* in the Nushki tahsíl usually import their bullocks and cows from Kachhi, the average price of which is Rs 50 and Rs. 30 respectively. The indigenous breed is smaller in size, short-horned and of a thickset build. Those of dun colour are considered the best, while the black variety are supposed to stand the cold better. The average price is about Rs. 30.

Sheep and goats. The indigenous breed of sheep are of the thick-tailed, hornless variety, generally white in colour and of low build. The other varieties are known locally as the *kúko* which has short ears, the *boro* or dun which is chiefly used for sacrifices and which is usually found in the plains, the *kirgo* or grey, and the *mauna* or black which is met with in Chágai. The local breeds of goats are known as the *marghi* or black with large horns, the *butti* or short eared, the *kúti* or hornless and the *karri* which has large ears which is preferred for sacrificial purposes. A goat produces about 12 ounces of wool (*drassam*) and a sheep from 3 to 5 pounds. Goat hair is used by the nomads for making ropes, sacks and *gidán* flaps; camel hair for sacks and coarse cloth and sheep's wool (*kás*) for felts, cloaks, and carpets. Sheep's wool is sold by the *band*, or bundle of wool shorn from a single sheep, at rates varying from 2½ to 3½ *band* for the rupee.

Pasture grounds and feeding cattle. The District possesses extensive pasture grounds, and in normal years the flockowners experience no difficulty in finding sufficient fodder for their animals. The principal pasture grounds in the Nushki tahsíl are the Dák

plain and the low sandy hills, which are clothed with grass and shrubs suitable both for sheep and camels. In Chágai and the western Sanjráni country the best tracts are the Gaokoh, which lies east of Chágai and is generally used by the Muhammad Hasnis; Bolo, a hilly tract west of Chágai between Padgiábán and Dálbandin, used by the Dahmardag and Kamarzai; and the Sohr-áp, on the skirts of the hills of western Chágai, chiefly frequented by the Nabizai.

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Cattle diseases.

No scientific enquiries into prevailing cattle diseases have ever been made, but the following are some of the diseases known to the people of the country and the remedies resorted to by them:—(1) Footrot or *chárari*, which attacks sheep, cattle and goats in the shape of eruptions on the feet and causes lameness; the remedies are branding on the feet and bleeding the animal by slitting the ears, (2) camels are liable to *kullah* (cough) which appears to be an infectious disease and sometimes causes great loss. The animals are segregated and a compound of onions is administered. (3) *Gaz* or mange is a still more dangerous disease which attacks camels and causes great mortality among the herds. The first symptoms are mange and the animal loses all its hair, the skin then becomes dry and hard, extreme debility follows and the animal generally dies in a few days. The disease makes its appearance after a succession of dry seasons and is highly contagious. It is said to be due to the accumulation of sand and salt on the *tághaz* bushes, on which the camels graze during years of drought. The remedy is a plaster made of the ashes of tamarisk wood which is applied for three days in succession, after which the body of the animal is rubbed with curds or fat. The disease appeared in a very virulent form during the summer of 1893, when several thousand animals are reported to have died.

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Goats also suffer from the same disease and in their case a curious remedy is adopted. A live snake is boiled in sheep's fat and the concoction is applied to an incision made in the tail of the affected animal. (4) *Buzmarg* (*pleuro pneumonia contagiosa*) is also common and causes great mortality among the flocks. The usual remedy is inoculation, the lymph being prepared from the lung of a diseased goat steeped in sal ammoniac and inserted in a slit made in one of the ears. (5) *Putah* or small pox is common to all animals; for this there are no indigenous remedies and the disease is not considered dangerous.

Irrigation.

The greater part of the cultivation in dry crop areas depends on the flood water brought down by hill torrents and *nullahs*. In many places the force with which a flood descends is often too great to admit of the whole of the bed being entirely dammed up by any embankment such as the local agriculturists could construct; and in such cases all that can be done is to erect at suitable intervals earthen embankments extending about half way across the torrent bed to head up the water, and lead it down to the distributing channels, which open immediately above the embankments. *Band* is the name given to these embankments as well as to the embankments constructed round a field. These *bands* are constructed of surface soil only without any deep foundation, and are usually greatly damaged by every heavy flood, and in some cases are entirely washed away; but they answer their purpose by holding up the flood water for a time and diverting it over the culturable land. The majority are the common property of the village or of a section of a tribe, and the work of repairs or reconstruction is undertaken regularly each year between the months of August and October by the whole community under the direct supervision of their headmen. The rules which regulate the supply of labour are ancient and well-established and are fully recognised by the cultivators, the general principle being that the

amount of the labour given is in proportion to the benefit received from the water. AGRICULTURE.

The embankments are made with the aid of oxen, which are yoked to a kind of large shovel (*kinr*) which fills with earth as they drag it along, and is then upset on the rising embankment. The general superintendence of the work is usually entrusted to an elder, who has the local reputation of being an expert.

Bands which are the property of individual persons, are repaired either by the landlord's tenants, or by the system of *hashar* or tribal or village co-operation which has already been described under Population.

In the Nushki tahsíl the principal dams are (1) the Mír Baloch Khán Band, which belongs to the Mándais and irrigates the Lop lands near Bághak; (2) the Mal Band belonging to the Bádínis; and (3) the two dams known as Band Chandan Khán and Band Amírzai, which belong to the Méngals and irrigate the Lidi lands.

The Dák lands which are traversed by the Lora river, or Bur *nullah* as it is locally called, comprise the most fertile dry crop area in the District, and small *bands* are constructed from time to time across the subsidiary *nullahs*. But hitherto all attempts to dam the main channel have proved failures. The first *band* during recent times was built by Rahmán Khán, the late Méngal chief, in 1880. It was situated a mile below the Afghán border and is said to have withstood the floods for five years. The next *band* was constructed a little lower down but was washed away the second season. In 1895, a third dam was built by Sardár Muhammad Ali the present Méngal chief, and stood for one year only. In 1902, a large *band* was constructed near Bulandwál by Government at a cost of Rs. 13,910 under the direct supervision of the Irrigation Officer. The winter floods of 1902-3 were, however, unusually severe, and the greater portion of the main embankment was swept away in January 1903. It was

AGRICULTURE. repaired during the following summer at a cost of Rs. 4,700, but was again unable to withstand the force of the winter floods.

As the Dák plain consists of a stretch of about 25 miles of the most fertile alluvial soil, and an immense volume of water is yearly brought down by the Lora, there is no doubt that a successful work would have a great effect in increasing the prosperity of the District. On the other hand, the cost would be very great, as the soil is unsuitable for a good foundation and the materials for the embankment would have to be transported from considerable distances.

Káréz irrigation. There are at present (1905) twenty three *kárezes* in the District, (Nushki eleven, and Chágai twelve,) but the majority are small and unimportant, many in Chágai being mere trickles of water. It is estimated that the total area irrigated by these channels amounted in 1905 to 1,100 acres only (Nushki tahsíl 1,000 acres and Chágai 100 acres). The *káréz* appears to be a very ancient method of artificial irrigation indigenous to the country. There are ruins of many old *kárézes*, now out of repair, in all parts of the District which are ascribed variously to the Arabs or to the Mughals. Some of these appear to have been of considerable size, and it would seem that in former days the supply of water was greater than it now is.

The local experts in *káréz* digging are the transborder Ghilzai Afgháns who come to the District in winter. They prefer this season owing to the severity of the climate in their own country and the convenience of working underground in winter. They generally work in parties of four, technically known as a *charkh*, the name being derived from the "windlass" which forms the most important part of their equipment. The work is done either by contract for a lump sum or on payment by actual measurement; and while thus employed, the workmen are generally provided with food, tools, loin cloth and

lights by their employers. The tool chiefly used is a short pick-axe (*kulang*) which can be employed by a man in a kneeling or crouching attitude. Details of the prevailing rates will be found in the section on Wages. AGRICULTURE.

In selecting a site for a *káréz* the excavators are guided solely by experience and have no scientific knowledge. Generally a site is chosen along the banks of a hill torrent, or in one of the inosculating fans situated where a hill torrent debouches from the mountains into the valley. Note is also taken of the appearance of moisture after rain and of the presence of moisture-loving shrubs and grasses. The next step is to dig a trial well (*gumána*), and if this proves successful, other wells are dug and connected by tunnels (*lambúrs*) until the water reaches the surface. The distance between an existing *káréz* and a proposed one varies from 100 to 500 yards.

Small *kárézes* can be dug by individual persons, but the excavation of a large *káréz* is an expensive undertaking, and it is, therefore, generally constructed by joint capital and is owned by several co-sharers. In this District, where the majority of the inhabitants is poor, Rs. 3,000 is the outside limit of the amount usually spent on a new *káréz*.

The Government has encouraged the construction of such works by granting takávi advances and by exempting new sources of irrigation from payment of revenue for a term of years. Between 1901-02 and 1904-05 advances were given in five cases in Nushki and in two cases in Chágai.

In the Nushki tahsíl the important *kárezés* are the Hárúni, which irrigates about 215 acres, the Bághak and Nokjo which jointly irrigate about 180 acres, and the Badal Khán and Ahmadwál with 100 and 110 acres respectively. In Chágai the largest *káréz* is the Lijji which irrigates about 22 acres of land.

An interesting account of "the theory of the *káréz*"

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is given by Mr. R. D. Oldham in the Records* of the Geological Survey of India. This account has also been quoted in full in chapter II of the Gazetteer of the Quetta-Pishín District.

The Nushki stream.

The only other permanent supply of water in the District is the Khaisár or Nushki stream, which, in addition to the Nushki Town lands, irrigates the Khazína, Barkho and Wah tracts belonging to the Jamáldínis, the Khádi, Lath and Ispintani tracts belonging to the Bádínis, and the Gokhi lands of the Méngals. The total average area of the land irrigated annually is estimated at about 2,000 acres (1905). It also forms the chief drinking water supply of Nushki and the Méngal and Rakhsháni villages in the neighbourhood. The volume of water which follows the natural turns of the river bed and flows in a wide shallow channel, is considerably diminished by wastage and evaporation before it reaches the cultivation.

Maintenance of channels and *kárézes*.

The *miráb*, where such a village official exists, and in other places the headman is responsible for the maintenance and repair of the channels and *kárézes*, and the work is usually undertaken by the share-holders. In special cases where expert labour is required, the cost is collected from the co-partners in proportion to the share of water held by each, and the work is carried out by Ghilzai or other labourers under the supervision of the *miráb* or headman. In many parts of the District the repairs are done by a special body of the co-partners who have been alloted shares in the *kárézes* on the condition that they keep them in working order. This is known as the *lae kashi* system. The maintenance of the Khaisár channel is undertaken in turn by the Bádínis, Jámaldínis and Méngals.

Division of perennial water.

Permanent sources of irrigation are divided into a number of shares, the principal share being the *Shabána* or *Shabánaroz*, or the flow of a day and night. The water

* *Records of the Geological Survey of India*, Vol. XXV, part I, 1892.

of the Khaisár stream is also divided into the *Khúm Shabána*, which represents a twelve hours' flow. The minor divisions differ in each tahsíl and are indicated in the following table :— AGRICULTURE.

(a) Nushki tahsíl.

The lowest unit is a *dígar*.

4 dígar = 1 pás.
4 pas = 1 tá.
2 tá = 1 shabánaroz.

(b) Chágai sub-tahsíl.

The lowest unit here is *ním chárak*.

2 ním chárak = 1 Chárak.
2 Chárak = 1 bél.
2 bél = 1 shabána.

The actual distribution is conducted by the cultivators themselves. During the day it is carried out with the help of a dial, and during the night by the position of the moon and certain stars. The Khaisár stream and every important *káréz* held jointly by *zamíndárs* has a *miráb* or *malik* who superintends the division of water as well as the maintenance of the channels. In the Khaisár stream he receives, in addition to his ordinary share as a tribesman, 2 pás or ¼ of a *shabánaroz* of water. The Khaisár stream is permanently divided into 30 *shabánaroz* of which the original tribal distribution was as follows :—

Jamáldíni Rakhsháni		8½	Shabánaroz.
Bádíni	do.	9	ditto.
Méngals		12½	ditto.

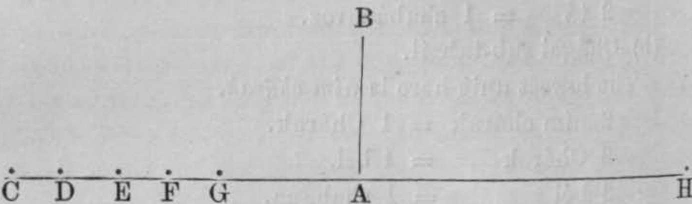
In 1899 half a *shabána* of the Badini share was acquired by purchase for Nushki town.

Frequent changes are caused by sales, mortgages and transfers, and in order to arrange for these a fresh division is made in September of each year, when the shares of the different tribes are scrutinised and the water is distributed among the tribes in accordance with the number of shares held by its members. According to

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ancient custom Government has the right to the first turn of the water and the turns of the different tribes in succession are determined by lot.

The dial, which furnishes an accurate guide, consists of a straight stick twelve fingers high, which is divided into four equal parts and planted in level ground. The subsequent operations can be more conveniently explained by the following diagram:—



A B represents the stick, and C H the ground line. At sunrise the shadow A C is double the length of the stick and is divided into 8 equal parts. The first *dígar* is over when the shadow reaches D, or $1\frac{3}{4}$ of the length of the stick, and the second and third when the shadow reaches E and F respectively; each subsequent *dígar* being represented by one division. At midday 8 *dígar* or 4 *pás* are over; and in the afternoon the reverse process is followed, each *dígar* being marked by the lengthening shadow along the line A H.

The distribution of water by night is a more difficult business, and is conducted largely by guess work. Quarrels often occur, but the *míráb* is chosen for his knowledge and experience and in each locality there are certain experts whose decisions are usually considered as final. This system of distribution is also followed in the case of the larger *kárézes*. As regards small *kárézes* the water is not usually divided, the land being cultivated jointly and the produce being ultimately distributed among the *zamíndárs* in proportion to their shares of water.

Water-mills

There are 4 water mills on the Khaisár stream of which 3 belong to the Rakhshánis and the fourth to the Méngals.

The mills are of the ordinary rough and ready type found in other parts of Baluchistán. The stones are obtained locally from the Jaurkín and Munjro hills near Dédár and from the hills near Ahmadwál. A pair of stones costs about Rs. 30 and lasts from five to six years. The initial cost of constructing a mill amounts to about Rs. 200. The miller (*aséwán*) in charge of the Méngal mill pays no rent, but is required to grind corn for the owners free of charge. The other mills pay two-thirds of the earnings as rent to the owners. The charge for grinding is generally levied in kind and varies from one-tenth from the shop-keepers to one-fifteenth and one-twentieth from the *zamíndárs*. Cash rates are also sometimes charged, the rate for wheat being 4 annas per gunny bag (about 2¾ maunds) for crushing, and from 8 to 13 annas for grinding. In addition to the above, the miller receives 6 pies per bag as his own share (*shágirdána*). The out-turn of a mill varies from 22 to 24 maunds a day. AGRICULTURE.

Hand-mills. In the other parts of the District corn-grinding is left entirely to the women and is done with the quern or handmill (*nuskhol*) consisting of two grooved stones about a foot and a half in diameter.

Persian wind-mills. Persian and American wind-mills have been tried at different stages along the trade route, but up to the present (1905) without any success.

Artesian wells. The Irrigation Commission of 1903 considered that experimental borings in Baluchistán appeared to hold out more hope of securing an artesian supply of water at a moderate depth than in other parts of India, and in accordance with their recommendation the Government of India made a special grant of Rs. 50,000 for the purpose of making experiments in different parts of the country (1904-05). The place chosen for the first experiment in the District was the Ahmadwál village near Nushki where the work is now proceeding (1905).* The alternative sites

*Discontinued in the spring of 1906 after a depth of 330 feet had been reached pending a further report by a geological expert.

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suggested by the District authorities were Dálbandin and Kishingi.

The general conditions under which artesian water exists are fully dealt with in a report by Mr. R. D. Oldham of the Geological Survey of India and embodied in Volume XXV, Part I of the Records of that Department.

RENTS, WAGES AND PRICES.

Rents.

Reference will be found to the character of the tenures and tenancies in the District in a subsequent section. As might be expected in a backward country in which crops are liable to great variations, rent almost always consists in a share of the grain heap.

Produce rents; method of distribution of the grain heap.

In such cases the distribution is generally made on the principle of an assignment of a share of the produce for each of the chief requisites of cultivation, such as water, land, seed and labour. The Government revenue, the Government cesses and wages of the village servants are the first charges against the grain heap, and the balance is divided into 9 shares which comprise the following items: land 2 shares, water 2 shares, seed 2 shares, plough oxen with their feed 1½ shares, and tenants' labour 1½ shares. The division of straw and fodder is made in a similar manner, with the exception that when the tenant supplies labour only, he is not entitled to any share. The above is the general rule throughout the District, but is some cases in the Nushki tahsíl the landlord is paid a fixed amount of grain, previously decided upon, as rent for land and water. This system is known as *ijára*. With regard to the cultivation of melons which has been recently started near Nushki by Kandaháris, the tenant provides seed, labour and bullocks, and after the Government revenue and cesses have been recovered, the balance of the produce is equally divided between him and the landlord.

The division of the share between the landlord and the tenant-at-will is as follows :—

	Landlord.	Tenant.
(a) When the tenant supplies labour, seed and bullocks	$\frac{1}{4}$th	$\frac{3}{4}$th.
(b) When the landlord supplies seed..	$\frac{1}{2}$	$\frac{1}{2}$
(c) When the tenant supplies seed and one bullock, the second bullock being supplied by the landlord	$\frac{1}{4}$	$\frac{3}{4}$
(d) When the tenant supplies labour and one bullock	$\frac{3}{4}$	$\frac{1}{4}$
(e) When the landlord supplies half of the seed only...	$\frac{1}{3}$	$\frac{2}{3}$
(f) When the seed and bullocks are equally provided by tenant and landlord	$\frac{5}{12}$	$\frac{7}{12}$

The general practice in the Chágai sub-tahsíl is for the tenant to supply labour and bullocks only. A *lathband* or occupancy tenant pays a fixed share of the produce generally about $\frac{1}{4}$th to the landlord as rent (*bohal*).

Duties of tenants.

Among the Rakhshánis of Nushki a tenant on irrigated lands has to repair the open water channels, repair and plaster the landlord's huts, take his corn to be ground at the mill and supply fuel during the winter. Among the Méngals this last named service is not exacted. Repairs to the wells of *káré́zes* and the tunnels do not devolve on the tenants. In Chágai the only additional labour required from the tenant is to look after the maintenance of the open water channels.

Wages.

No coolie class exists among the cultivating population; the tenants-at-will perform the services mentioned above, while the household work of men of means is generally performed by their servile dependants. Boys belonging

RENTS, WAGES AND PRICES.

to the poorer families are also sometimes employed on household work and their wages consist of their food, clothing and a small salary of one or two rupees a month.

Harvest labourers.

The harvest labourers who include women and children, receive a share of the crop of the spring harvest generally one-twentieth of the harvested crop. During the autumn harvest they are given from 10 to 15 ears of *juari* as remuneration for a day's work. It is estimated that an able-bodied man can earn about 7 seers of grain in the day.

Shepherds.

Shepherds (*shwán*) are generally engaged in the spring by the year. They are given their food and a proportion of the lambs and kids born during the year, the usual rate being one lamb or one kid for every ten sheep or goats in his charge. He is also given a *namda* or felt coat made of wool, a knife, a bag for keeping *ata*, a pair of leather sandals (*chawat*) in the summer, and a pair of felt sandals (*sur*) in the winter. No wages are paid for he-goats or rams when they number less than 25 per cent. in a flock, or for lambs or kids under a year old. Young boys known as *zapán* are engaged to look after the lambs and kids, and are given their food only. Their employment seems to be peculiar to this district.

Camel herd.

The camel herd (*bag-jat*) is also engaged by the year, and receives one young camel for every 30 camels (in Chágai for every 33 camels) grazed by him during the year. He is also supplied with a knife, a bag, and a pair of sandals, and with his food, or, if the grazing grounds are far from the village, with an allowance of grain generally amounting to about 37 seers a month. If the herd belongs to several owners, the usual rates are one rupee and one *kása* of grain for each animal under his charge during the year. In the Chágai tahsíl he is entitled to no wages unless he completes the full term of his engagement, but in Nushki he receives payment in cash in proportion to the period he has served.

Each important village in the District has a *mullá*, who conducts prayers and officiates at marriage, funeral and other domestic ceremonies, and who lives by the fees, alms and *zakát* of the villagers. The *zakát* usually comprises one-tenth of the produce of the land and one sheep or goat from each flock when the number exceeds 40 but is less than 100, and two goats or sheep when the number exceeds 100. The fees are not fixed, and vary in accordance with the means and social position of the donors. After conducting funeral ceremonies the *mullá* is also usually presented with the clothes of the deceased.

RENTS, WAGES AND PRICES.

Village servants.

The services of village blacksmith and carpenter are performed by the Loris, the majority of whom belong to the Sarmastári clan. The usual rate of payment is one *kása* of grain per *kharwár* of the produce at each harvest. If one man combines both professions he is entitled to 2 *kásas* per *kharwár*.

Crop watcher.

Crop watchers or *sabzwán* are employed on irrigated lands only, and for the spring crops are paid at the rate of 20 seers of corn per *kharwár* which is provided in equal shares by the landlord and tenant. For the autumn crops they receive 1/21 of the gross produce, the whole being paid by the landlord. The *ambárchín* is a village official employed in the Nushki villages to guard the threshing floors. His pay varies, from 1 to 3 maunds of grain according to the amount of the total produce.

Labourers.

There are no regular rates, but local unskilled labour can generally be obtained in the western portion of the District at about 4 annas per diem. The rates in Nushki rose considerably during the railway construction works, and at the present time (1905) vary from 5 to 8 annas per diem. The local inhabitants are poor workmen, and for more important works alien labourers are generally employed, their wages varying according to the state of the market and the nature of the work.

RENTS, WAGES AND PRICES.
Skilled labour.

Skilled labourers and artisans, other than the village Loris, are imported from India and chiefly from the Punjab. Owing to the high prices, great distances and the difficulties of transport the wages are high, masons being paid at rates varying from Rs. 1-8-0 and Rs. 2 per diem on the railway to Rs. 2 and Rs. 2-4-0 on the more remote stages of the Trade Route.

Káréz diggers.

Káréz digging which is an expert occupation is almost entirely in the hands of the Ghilzais, who visit the District during the winter months and generally work in parties of four. In addition to such other payment as may be agreed upon, they usually receive their food from their employer, who also supplies the windlass (*charkh*), all necessary tools, oil for lamps and loin cloths (*lang*). The work is undertaken either on contract (*ijára*) when arrangements are made for the payment in a lump sum, on the system known as *khat kashi* or by piece work. The last named is the most common method. The rates vary according to the nature of the soil in which the *káréz* is to be constructed, but the following may be regarded as fairly representative :—

Nushki Táhsíl.

(a) for a well in soft soil 6 feet deep (the diggers determine the size of the well and tunnels and no regard is paid to it in fixing the wages) ... ... Re 1

(b) For a well in hard soil of same depth ... Rs. 2

(c) Tunnel in soft soil 3½ yards long ... ... Re. 1

(d) Tunnel in hard soil of the same length ... Rs. 3

Chágai tahsíl.

(a) Well in soft soil one *gwánz* (about 6½ feet) in depth ... ... Rs. 1 8

(b) Well in hard soil ... ... Rs. 2 8

(c) Tunnel in soft soil one *gwánz* in length... Rs. 1 12

(d) Tunnel in hard soil one *gwánz* in length. Rs. 2 12

Under the *khat kashi* system a capitalist or a gang of labourers engage to construct a *káréz* on another man's

land, on the condition that, if it proves successful, it will be divided between the workers and the owners of the land in certain fixed proportions, previously agreed upon. The general rule is for it to be divided at the rate of 2 shares to the capitalists and 3 shares to the landlords.

RENTS, WAGES AND PRICES.

Prices.

Wheat is the staple food grain in the greater part of the District, but *juári* and *khurma* (dates), are also largely used. In ordinary years the eastern part of the District produces sufficient grain for its requirements, but when there is an abnormal influx of labour, as was the case during the construction of the Quetta-Nushki Railway, or when bad seasons occur, prices are liable to a considerable rise. Thus the average price of wheat, which in 1893 was selling at Nushki at over 20 seers to a rupee, rose during 1903 and 1904, when the Railway works were in progress, to about 12 seers. In exceptionally bad seasons it has been known to be as high as 7 seers. Similarly *bhúsa*, which had practically no value in the early years rose in 1903 and 1904 to prices varying from 8 annas to Re. 1 per maund.

The nomads of the western portion of the district depend to a very great extent on Garmsél and Khárán, and the prices vary in accordance with the conditions of the season. In 1901 which was a particularly unfavourable year grain had to be imported from Nushki for the posts along the Trade Route. The opening of the Nushki Railway (1905) will probably tend to equalize the rates of flour or grain with those prevailing at Quetta. The prices of staple food grains, *bhúsa*, firewood and salt for five years from 1900 to 1904 are given in table V, volume B. The average price of wheat has varied from 9¼ seers to 19¾ seers and *juári* from 11½ seers to 20 seers.

WEIGHTS AND MEASURES.

Before British occupation the Kaláti seer of 88 tolas was in general use. Since 1899 Indian weights with a seer of 80 tolas and a maund of 40 seers have been introduced in the Nushki bazar and at the shops along the

WEIGHTS AND MEASURES. Seistán Trade Route, the weights in ordinary use being those of 20 seers, 10 seers, 5 seers, 2 seers, 1 seer, half seer, quarter seer, one-eighth of a seer, chittack, half chittack and quarter chittack.

Bulky articles such as firewood and fodder are generally dealt with by the maund of 82 pounds.

Measures of grain. Outside the bazars, grain is still sold by the measure and not by weight. The lowest unit is a *lap*—a handful and the measures in common use are:—

6 lap	=	1 kuroi or kurwa.
2 kuroi	=	1 manri,
2 manri	=	1 kása.
50 kása	=	1 bár.
80 kása	=	1 kharwár.

The *lap bár* and *kharwár* are merely nominal amounts, and the measure in daily use is the *kása*. In the Chágai tahsíl, the *Kháráni man* (about 3¼ seers) is also used as a standard measure. For the purposes of measuring revenue grain, a *kása* of wheat is calculated at 5½ seers, but in ordinary use its actual capacity varies in each tahsíl and also in the case of the different kinds of grain, as will be seen from the following table:—

	Wheat Seers.	Barley Seers.	Juari Seers.
Nushki kása	5¼	4¼	5¼
Chágai kása	5½	4½	5½
Khárán man	3¼	2½	3¼

Bulky articles such as firewood, *bhúsa* and grass are usually sold by the camel, donkey or bullock load. Wool is made into bundles or *bands* and is sold at the rate of from 2½ to 3½ *bands* for the rupee, a *band* weighing from 1½ to 2 seers. Wool shorn in the spring is known as *hatam chén* and is usually sold, while the autumn wool (*mésh chén*) is kept for home use.

Linear measures. In the Nushki bazar and along the Seistán Trade Route the standard yard of 16 *girahs* or 36 inches is in use, but

the people of the country still employ the measures known as the *arash* and *gwánz*. The former which is generally used for measuring cloth varies with the stature of the customer and is measured from the projecting bone of the elbow, round the end of the middle finger, when extended straight, and back to the lower knuckle joint. The average length is about 21 inches. The *gwánz* is also an indefinite measure, being the distance between the tips of the middle fingers when both arms are extended to their full length. It is about 79 inches in length and is used for measuring *kárézes,* channels and wells. **WEIGHTS AND MEASURES.**

Superficial measures.

The land and water under a permanent source of irrigation are both divided. The amount of land attached to a *shabánaroz* or other minor division of water is definitely recognised, and irrigated land is always known by the proportion of water attached to it. Unirrigated lands are usually sold by plots.

Measures of time.

Chiefs and others who have dealings with Government officials know the English months, but the names used in documents are those of the Arabic months; viz., Muharram; Safar; Rabi-ul-awal; Rabi-us-sáni; Jamádi-ul-awal; Jamádi-us-sáni; Rajab; Shábán; Ramzán; Shawál; Zíkád and Zílhij. The majority of the people, however, only recognise the main seasons which are: *hatam* or spring, from March to May; *tírma,* or *bashshám,* or the season between June and August when rain may be expected; *sohél* or the autumn comprising September and October; and *sélt* or winter, November to February. By most of the cultivators and flockowners 9 *chillás* or periods of 40 days are recognised. They begin in November with the *chilla-i-khushk* which is followed by the *chilla-i-tar,* the rest being known as *siáh, sabz, zard, ahanr, sáwanr, sohél* and *naft.*

The days of the week are those recognised by Muhammadans; Friday being considered as the first and holy day,

WEIGHTS AND MEASURES.

The day (*roch* or *de*) and the night (*shaf* or *nan*) are divided into the following parts :—

Vernacular names.	Explanations.
Guarbám ...	... A little before dawn.
Nimázi wakht	... The time of early prayers or dawn.
Dé tik ...	... Sunrise.
Chásht	... About 10 A. M.
Némroch ...	... Noon.
Burz péshi ...	... About 2 P. M.
Péshi	... About 4 P. M.
Burz dígar ...	... About 5 P. M.
Dígar	... About 6 P. M.
Shám	... Sunset.
Khuftan ...	... About 10 P. M.
Ném nan or Ném shaf...	Midnight.

The divisions of the day generally recognised are those connected with the Muhammadan hours of prayers, such as *Nimázi wakht, péshi, dígar,* und *khuftan.*

Coins.

Before British occupation the *kaldár* or British Indian rupee was rarely used, the coins most generally current being known as the Kandahári, Kábuli, and Ghajri rupees of Afghánistán and Persia. These coins are still used in dealings with the traders from Afghánistán and Seistán. The present value of a Kábuli rupee is (1905) about 8 annas, and that of a Kandahári rupee about 4 annas and 8 pies. The Kirán (Ghirán) is half a Ghajri rupee and its value is about 4 annas. Since the British occupation Indian coins have also come in use and their local names are :—

Indian coins.	Local names.
A rupee	... kaldar.
0—8—0	... ném rupee.
0—4—0	... paoli.
0—2—0	... sháhi.
0—1—0	... ném sháhi.

The following table shows the units of the Afghán and Persian coinage :— WEIGHTS, AND MEASURES.

Afghán.

3 ikki	=	1 sháhi.
2 sháhi	=	1 misqáli.
2 misqáli	=	1 abbási.
3 misqáli	=	1 qirán or ghirán.
3 abbási	=	1 kandahári.
5 abbási	=	1 kábuli.

Persian.

2 púl	=	1 sháhi.
5 sháhi	–	1 ruba.
2 rúba	=	1 panáh bád.
2 panáh bád	=	1 ghirán or qirán.
2 ghirán	=	1 ghajri rupee.

MATERIAL CONDITION OF THE PEOPLE.

The improvement in the material conditions of the people consequent on a settled Government, the cessation of inter-tribal feuds and an immunity from external raids has already been noticed. It is especially marked in the neighbourhood of Nushki, and is indicated by the better material used for dress both by men and women, by the extension of agriculture and the improvement of the villages and by the increase of marriage expenses. The opening out of the Trade Route and the railway has also afforded a better market to both agriculturists and nomads for the disposal of their surplus produce. On the other hand the rise in the standard of living coupled with a long succession of unfavourable seasons has led to a considerable amount of indebtedness among the *zamíndárs*. The state of the Hindu traders has undoubtedly much improved, and the present condition of their prosperity contrasts very favourably with the description given by Pottinger of the few banias who were found in the District in 1810.

FORESTS.
Protective measures taken.

There are no regular Reserved Forests in the District (1905). In 1903, the rules contained in the Agent to the Governor-General's Notification No. 2271, dated the 27th of February 1901,* prohibiting the cutting of certain reserved trees were extended to the District. The local trees, affected by these rules, include the *Tamarix articulata—kirri* or *ghaz*, the *Pistacia khanjak* (*gwan*), *Prunus eburnea* (*archin*) *Haloxylon Ammodendron* (*tághaz*) and the *Stocksia Brahuica* (*kator*). Cutting in the Khaisár forest area is entirely prohibited, while in other localities the *zamíndárs* are permitted to cut green trees with the permission of the tahsíldár, and to gather dry wood for private use without reference to any authority. In April 1904, when the railway was under construction a post consisting of a forester and 5 forest guards was stationed in the Khaisár hills to protect the wooded areas.

The question of forming these areas into a forest reserve is under consideration (1905). The right to levy royalty on wood is leased annually and the proceeds are credited to the Forest Department.

Minor Forest Produce.
Assafœtida.

Assafœtida is found in considerable quantities in the western portion of the District, the principal localities being Koh-Sultán, Amír Cháh, Gami Cháh, Shér Khán Cháh and Groi. It is especially plentiful after good winter rains.

There is a male and female plant which are known as *kular hing* and *pauni hing* respectively, the distinction being that the former has a large flower of a light straw colour, while the latter has none. The drug is extracted from the female plant only. The stem is from 1 to 2½ feet long and from 3 to 4 inches thick, and the leaves somewhat resemble those of the large Indian beetroot. The collectors are usually Babár Afgháns from the Zhob

* *The Baluchistán Forest Manual*, p. 53A.

FORESTS.

District, who arrive during April and May and stay for the greater part of the summer. They divide themselves into groups of about ten persons each and allot portions of the land to each group. The plant is protected from the sun by a small hut made of stones, and when it begins to ripen, an incision is made in the stem and the sap or juice which exudes is collected in skins and dried in the sun. Fresh incisions are made at intervals and each plant is able to give from three to four collections. It is estimated that the asafœtida produced from one stalk usually amounts to about a pound and sometimes more. Good asafœtida ought to be of a pale yellow colour, and the price of the drug in the Quetta market varies from Rs. 20 to Rs. 100 a maund.

The young plant is also eaten as a vegetable stewed in butter and is considered a great delicacy. Condiments are made from the dried leaves.

Important Trees. Pistachio (*Pistacia khanjak*) *Bal. & Br. *gwan.*

The pistachio tree is found at elevations from 3,000 to 8,000 feet in the Singhbur, Khaisár, Ghazhol, Chágai, Baráb Cháh and Búlo hills. The growth is scattered and sparse, and the tree is extremely slow growing and difficult to rear. It seldom grows more than 30 to 40 feet in height and is generally lower. The wood is superior to that of any other tree growing in the highlands.

The natives recognise two varieties, one which gives fruit and is known as the *máda* or female, and the other which has thicker foliage and does not bear fruit, and is called *nar* or male. A tree begins to bear fruit when twenty-five to thirty years old and is said to live to a great age. The fruit at first is green, then yellowish and when ripe about the middle of August assumes a dark purple colour. A tree is said to yield about 30 seers and a good snowfall generally results in a fine harvest. Hills and ravines bearing the *gwan* are usually

*Bal. =Balochi; Br. =Brahui.

FORESTS. owned by tribal groups and the trees are much valued for their fruit.

The fruit (*gwan*) is eaten both fresh and dry. It is also made into a porridge which is eaten with dates, and into oil which is used as a relish with bread. In a good year about 300 maunds of the fruit are exported from Nushki to Khárán and Shoráwak. The resin of the tree locally known as the *gwanjik* is considered efficacious in the case of cuts, bruises and boils. It is also chewed by the women, and is considered to allay thirst.

Date palm. The date is not an important product of the District and is only found in the Gat-i-Barot valley, The fruit is small and of inferior quality. The cultivation of a better kind has not proved successful.

Nannorhops Ritchieana. Balochi and Brahui *Pish.* The *písh* or dwarf palm is found in considerable quantities on rocky ground up to a height of about 3,000 feet in the lower ravines of the Chágai hills. It is a most useful plant and is largely used by the local people for making mats, sandals and ropes. The fruit (*kunar* or *kundár*) which ripens in November and the roots (*kúsh*) are also used as food by the poorer classes.

MINES AND MINERALS. The editor is indebted to Mr. E. Vredenburg, Deputy Superintendent of the Geological Survey of India for the following detailed account of the mineral resources of the District.*

"Ores of copper, lead, and iron, and some other minerals of commercial value, such as sulphur—*gokurt*, sulphate of lime and sulphate of alumina—*phulmak* have been met with in several localities. Some of them occur in small pockets as an original constituent of some of the igneous rocks mentioned in previous chapters. All the others are results of solfataric action, either in the recent volcanoes, or in connection with some basaltic intrusions that belong to an earlier period. None of the deposits observed are

**Memoirs of the Geological Survey of India,* Vol. XXXI, Part 2, for 1901.

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of great richness, and the physical drawbacks of the region, the absence of fuel and the difficulty of obtaining labour make it improbable that any satisfactory returns could be obtained under existing conditions. Some of the varieties of travertine formerly deposited by hot springs connected with volcanic activity might be used as an ornamental stone.

Silicate of copper.

"Silicate of copper, or "chrysocolla" occurs disseminated through syenite in the Rás Koh, south of Chársar in the State of Khárau, and through diorite, in the Lár Koh in Persia, near Malik-i-Siáh-Koh. These syenites and diorites are intrusions of tertiary age; their mineral composition is somewhat exceptional. Notwithstanding their acid character and low specific gravity, they contain an abundance of augite and even olivine. The proportion of titanium and phosphorus must be unusually high judging from the number and size of the crystals of sphene and apatite. Near the junction with the sedimentary rocks, the syenite frequently contains silicate of copper, not in veins, but disseminated amongst the other minerals in grains of varying size. My observations were not sufficient to decide whether any of these masses would be large enough or especially continuous enough to allow of systematic working; the mode of occurrence in itself renders this improbable. Some men living at Chársar, where there is a little cultivation along a '*káréz*,' remember having seen the metal extracted some thirty years ago, by a certain Dád Muhammad. This man merely collected out of the talus the pebbles containing copper ore, which are conspicuous on account of the green colour which they assume on weathering. These he pounded in a mortar and extracted the metal in a primitive manner, the smelting of chrysocolla being very easy.

"At Robát, near Lár Koh, there are some important remains of copper smelting works, in the shape of heaps

MINES AND MINERALS.

of slag. The blocks of slag are so numerous that a small fort now ruined was entirely built of them. The only ores which I saw in the neighbourhood are silicate of copper disseminated through the syenites and diorites of Lár Koh, and some veins containing carbonate of copper at Robát Koh and Malik-i-Siáh Koh. None of these deposits seem of sufficient importance to have yielded a large quantity of metal, and I did not see any remains of under-ground workings. It is possible that the ores smelted at Robát were obtained from some other spot which I have not visited, situated in the north-western continuation of the ranges in Persia. Khanikoff mentions the existence of large abandoned mines of lead and copper which are so situated.*

Ores occurring in veins.

"All the other ores observed seem to have been the result of solfataric action. All the rocks older than the Siwáliks, whether they may be intrusive or sedimentary, are frequently traversed by dykes of basalt. In many cases the felspars in these basalts are pseudomorphs consisting of calcite, and the alteration has extended to the surrounding rocks with the development of various secondary minerals such as epidote. Sometimes the alteration has proceeded further with the formation of bright coloured metallic ochres and the deposition of specular iron in fissures surrounding the dykes. Lastly, the ores are found in fissures without any igneous rock, constituting real veins, but they always occur in the neighbourhood of the basaltic dykes.

Drána Koh.

"The hills called Drána Koh (Lat. 29° 15′, Long. 61° 47′) in the neighbourhood of Zeh consist of intrusive quartz diorite. Later basaltic dykes run through this igneous mass; the intrusion of these basaltic dykes was accompanied by a considerable discharge of mineral vapours which have altered both the basalt itself and the neigh-

*Memoire Sur la Partie Meridionale de l'Asie Centrale, p. 169.

bouring portion of the diorite. Veins varying in width from 1 foot to 3 feet run parallel to the dykes and contain minerals which probably resulted from the same solfataric action. These minerals are quartz and silicate of copper or "chrysocolla." The copper ore occurs in small crystals of a turquoise blue colour. MINES AND MINERALS.

"At Saindak, particularly in the hill called Saindak Koh and amongst the ranges to the north-east, we find the same association of basaltic dykes and mineral veins. Only here the rocks traversed by them instead of being intrusive are sedimentary, consisting partly of volcanic tuffs and agglomerates of the flysch period, partly of shales and limestones which contain fossils indicating a middle and upper eocene age. The minerals found in the veins are principally carbonate of lime, sulphide of lead or "galena" and carbonates of copper, the green carbonate or "malachite," and the blue carbonate or "azurite." The veins are seldom more than a foot in diameter, and it is only where they are widest that they contain galena. The carbonates of copper occur as mere incrustations. The galena is occasionally collected by the inhabitants and smelted for making shot and bullets. Saindak.

"Very similar veins are found at Robát Koh and Malik-i-Siáh Koh. Here the rocks traversed by them are principally nummulitic limestone of lower eocene age. The limestone and underlying shales are largely intruded into by great masses of diorite, but the mineral veins and also some very basic magma basalts are probably newer than the diorite. The minerals contained in the veins are mostly iron ores, carbonate of iron and hematite, occasionally associated with carbonate of copper. Hematite occurs not only in the larger veins, but in the shape of small crystals of specular iron; it is found coating the fissures and planes of stratification of Koh-i-Malik Siáh.

MINES AND MINERALS.

the limestone in the immediate neighbourhood of the diorite intrusions.

Produce of recent volcanoes.

"Amongst the recent volcanoes which rise in the western portion of the district visited, the Koh-i-Tafdán is at the present day in the condition of a solfatara. The Koh-i-Sultán also went through the same stage before it became finally extinct; denudation has since laid bare some large masses of rock highly altered by mineral vapours.

"The masses of travertine formerly deposited by thermal springs, which are now exhausted, may also be regarded as the products of volcanic activity.

"I did not visit the crater of the Koh-i-Tafdán in Persia, but pieces of sulphur picked up upon the slopes of the volcano show that this mineral is no doubt abundant."

A further account of the minerals found in the District and their uses is given in a paper on "The occurrence of melanterite in Baluchistán"* read by Mr. David Hooper, F.C.S., before the Asiatic Society of Bengal on the 3rd of June 1903.

Gypsum.

"A crystalline form of gypsum known as selenite in a very pure condition," has also been found in the Ráskoh hills, but owing to difficulty of access and the heavy cost of transport it is not of any economic importance.

Salt.

Earth salt is collected at Míro Náwar near Saiad Mahmúd in the Nushki tahsíl, and at Wad-i-Sultán near Padag and Talkháb in the Chágai sub-tahsíl. This earth salt contains 97·627 per cent. chloride of sodium and is considered to be of fair quality. In 1900, Captain Webb-Ware Political Assistant, Chágai, reported that "it is found in Wad-i-Sultán in quantities which are to all intents and purposes unlimited and where it is obtained for the mere trouble of picking it up and packing it on camels."

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It is principally collected by the Mákíki, Siáhézai and Amírzai Méngals of Mal, and the quantity amounts to about a thousand maunds each year. It is used not only by the indigenous population of the District but also by the Baréch of Shoráwak, the nomads in Registán and the natives of Khárán. It is usually bartered for wheat and *juári*, the rates being 5 measures of salt to 1 of grain in Nushki and 8 measures in Chágai. The export to Quetta has entirely ceased since the duty on salt was raised to Rs. 1-8 per maund in 1901. MINES AND MINERALS.

The question of its taxation was raised in 1901, but it was considered that the cost of collection would exceed the revenue, and that while it would be impossible to prevent the local people from obtaining all they required, the levy of duty would only have the effect of forcing the transfrontier tribesmen of Régistán to collect their salt at Káni in Afghán territory, where an inferior quality can be obtained. Salt is also collected in the Hámún-i-Máshkél, where the Khárán chief levies a royalty of 12 annas per camel load (about 5 maunds).

ARTS AND MANUFACTURES.

Embroidery.

Embroidery is common among the settled inhabitants of the District. It is artistic and of many varieties but unfortunately the products have been much damaged by the introduction of aniline dyed silks. Of the Brahui embroideries that called *mosam* is the best. It consists of very close work in a form of satin stitch, the design being primarily geometric.

Other kinds which are not so fine are known as *máhi pusht*, *súching kún* and *puríwál*. These embroideries are worked on the garments worn both by men and women.

Carpets and rugs.

There is no manufacture of carpets or rugs for trade purposes; but rough carpets (*gháli*), striped rugs (*kont*), coarse woollen cloth (*sháll*) and blankets for *gidáns* are made by the women of the country for home use only.

ARTS AND MANUFACTURES.

The work is chiefly done by a special class of professional weaver women, who move from village to village and undertake the weaving on contract. It is customary for the employer to supply the wool and also food for the weavers while working, and the rates vary according to the quality and design of the work. A *kont* or rug is usually paid for at the rate of 8 annas a yard, and the working price of a carpet varies from Rs. 10 to Rs. 15 according to the size and design. The weavers supply their own implements, which are of a very primitive description and consist chiefly of a spindle (*jallak* or *julluk*), loom (*guáfta*) and beam (*pukhtu*).

Dyeing.

The following notes were supplied by Mr. T. O. Hughes in 1903 regarding the process of dyeing with *mak* or *zágh* as adopted by the Bráhui women :

"The shell of the pomegranate is pounded and put into water with the cloth to be dyed and boiled for about an hour. The cloth is then taken out and dried. When dry, it is put into water which has '*mak*' dissolved in it, when it immediately becomes black. It is allowed to remain in the water for about half an hour when it is taken out and dried. The process is then complete.

"Cloth dyed black with "*mak*" is not sold in the bazars but '*mak*' is much used for dyeing clothes by the poorest class of Bráhui women. Dyeing is also always done by the women.

"There appear to be no special quantities of pomegranate rind or '*mak*' to any special quantity of water. What I mean is they pay no special attention to the proportions, but from what I have seen I should say a table spoonful of powdered pomegranate to a pint of water—ditto '*mak*.'

"Method of using '*phulmak*' as a mordant :—

"The (*sákor*) gall of the *tamarix articulata (gaz)* is powdered and put into boiling water. While still hot, the cloth

to be dyed is put into it and left for a day. The next day it is taken out and dried, and when dry it is put into water which has *phulmak* dissolved in it, and left for about eight hours. It is then again dried, and when dry put into water which has powdered *majíth* (*Rubia cordifolia*) (Brahui *rodang*) soaking in it and left for some hours when it will be dyed a bright red. It is only with this red dye that *phulmak* is used as a mordant here, but I suppose it would act with any vegetable dye. I do not understand the part the tamarisk seed plays in it, but these people say the *phulmak* is of no use without it. ARTS AND MANUFACTURES.

"*Kharrun* (wool) is coloured green in the following way:

"About a chittack of indigo is rubbed in a basin of water and the wool is dipped in it for an hour. It is then dried and again dipped in a solution made of a wild plant called *dranao* or *dranag*. The women who know the art charge 4 to 8 annas a seer of wool in cash or kind for giving any of these colours."

Felts and *zor*.

In pre-British days when cloth of every kind was scarce, felt coats formed the principal article of male attire, and this is still the case among the poorer classes and more especially among the shepherds in the western parts of the District. Felt or *thappur* is made of sheep's wool, and the manufacture, which is not a difficult process, is undertaken by the women of the house. The wool is well beaten with sticks, cleaned, and made into parcels of about 2 seers each. The process of cleaning is called *káskhaling* in Bráhui. A thin *darri* of the required size is spread out and small pieces of wool are laid by the women over the whole of its surface; after this a second layer is added. If a variegated felt *sanjri* is to be made, coloured wool is used. Warm water is sprinkled over the layers of wool thus prepared, and the *darri* is then carefully and securely rolled up after which it is rubbed and pommelled with vigour. Every half hour or so more warm water is

ARTS AND MANUFACTURES.

added until the wool begins to felt; after felting the *thappur* is taken out and placed in the sun to dry. This process is continued for three days, more wool being added each time until the felt is ready for use. Its compactness depends on the rubbing it receives. The felts are almost all made for home use and there is no trade for them in the District. The long felt coats with closed sleeves which are much worn by the men are locally known as *zor*. Caravans from Seistán also bring a superior kind of *namdás* which are generally well felted and occasionally ornamented.

Silver and goldsmiths. Ornaments.

Little jewellery is worn by the local people, the majority being content with rough silver ornaments made by Makráni or Kharáni goldsmiths. Some people nearer Nushki are, however, beginning to use gold ornaments.

Potters.

There are no professional potters in the District and pottery is imported either from Quetta or from Sind. Among the indigenous population earthenware drinking bowls (*badni*) and cooking pots (*garo*) of a rough quality are in use and are made by the women.

COMMERCE AND TRADE.

Owing to its favourable position Nushki has from early times enjoyed the reputation of being a commercial centre of some importance. It has, however, had many fluctuations and its commerce has increased and diminished in accordance with the condition of the caravan routes and the internal affairs of the districts from which its trade was drawn.

Trade converges on it from the following main sources:—

(1) From Jálk, Khárán and Máshkél.

(2) From Garmsél, the Eastern Helmand and Shoráwak.

(3) From Seistán and Persia by the trade route.

Before the District came under British control trade of all descriptions was at a low ebb, owing to the insecure condition of the country and the heavy tolls levied by the

Sanjránis at Chágai and the Zagar Méngal chief at Nushki. The Méngal tolls had been levied on *káfilas* for many years, and would appear, in the first instance, to have been fairly moderate, Re. 1 per camel load being charged on tobacco, condiments, *dall*, rice and all goods imported from Quetta, while the rates on articles brought into Nushki from Khárán, Persia, and Afghánistán were 4 annas per load on dates, and ¼ and 4½ seers for wool and *ghí* respectively. In 1877, the Khán of Kalát, acquired one-half of the Nushki dues, and in order to prevent any decrease in his former income the Zagar Méngal chief doubled the rate on dates, increased it by 50 per cent. on wool and on other goods by 25 per cent., and imposed a tax on cloth, goats and sheep and salt, which had previously been free. He also levied an additional tax of 4 annas on each camel load as his special perquisite. This enhancement affected the Quetta trade and the attention of the Local Government was first drawn to it in December 1889 by Lieut.-Colonel G. Gaisford, who visited Nushki on his way to Chágai. In 1896, Major (now Sir Henry) McMahon while on the Afghán-Baloch Boundary Commission found that the contract for the collection of these dues had been sold for the previous year by the Khán to a Hindu for Rs. 4,000, the proceeds being equally divided between him and the Méngal Sardár, and that the actual collections amounted to about Rs. 15,000.

COMMERCE AND TRADE.

In Chágai Sarfaráz Khán, the father of the present Sanjráni chief, had imposed *sung* on all *káfilas* passing through his country at the following rates :—

(a) Per camel load of *ghí* or wool	Rs.	5	0
(b) Per camel load of dates or unladen camels	Rs.	2	0
(c) Per camel load of dye	Rs.	0	4
(d) Poll-tax on travellers per head ...	Rs.	0	4

The levy of this tax was continued by the Afgháns during their occupation of Chágai, and was reimposed by

COMMERCE AND TRADE.

the present chief at his reinstatement in 1896. Owing to these exactions coupled with the dangerous state of the routes, trade had greatly diminished, and it was reported in 1892 that the Persian trade with India was limited to about two *káfilas* yearly, and that practically no Indian goods were imported into Seistán.

The slave trade alone appears to have been an exception to the general rule and it seems to have been in a flourishing condition during the years prior to British occupation.

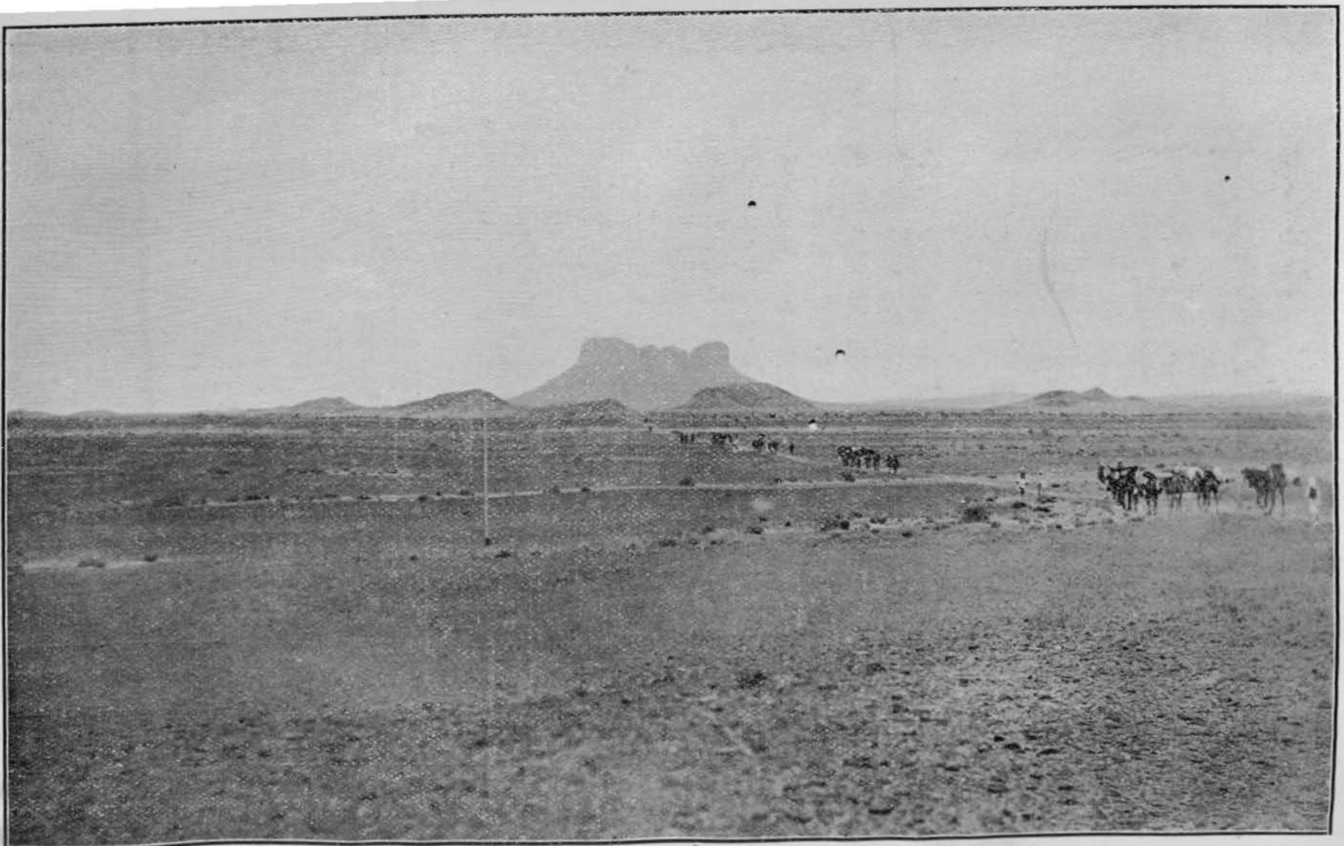
In November 1896 Lieutenant F. C. Webb-Ware was appointed to administer the Chágai—Sanjráni country, his special duty being to arrange for the safe-guarding of the Seistán route and the protection of trade. The first steps taken were to establish levy posts along the trade route, and the services of local chiefs were also engaged on the principle of allotting them pay for their services and holding them personally responsible for the repression of raids. Among others, Ido, Pahlwán of Saindak, a noted free-booter who had been the terror of *káfilas*, was engaged under these conditions and has since fulfilled his duties well. The tolls were abolished in January 1897, the chief being compensated by the grant of allowances as already described. The success of Lieutenant Webb-Ware's measures was assured from the commencement, and in the months of February and March 1897, trade to the extent of Rs. 63,883-10 passed through Nushki.

Development of trade.

The figures* of the trade passing through Nushki, since the opening of the Seistán Route, are given in the following table :—

Year.	Exports. Rs.	Imports. Rs.	Total. Rs.
1207-8	... 2,84,321	3,05,608	5,89,929
1898-9	... 3,81,259	3,46,824	7,28,083
1899-1900	... 5,53,393	6,82,029	12,35,412
1900-1	... 7,86,431	7 48,021	15,34,452
1901-2	... 11,95,158	7,94.700	19,89,858
1902-3	... 4,36,829	4,74,359	9,11,188
1903-4	... 5,64,987	4.75,471	10,40,458
1904-5	... 9,20 446	7,01,171	16,21,617

*Note.—The figures for the years 1897-8 to 1901-2 include specie, which is excluded from the last three years.



Nushki Seistan Trade Route.

Trade fluctuates in accordance with the conditions of the seasons, the year 1902-03 being an exceptionally unfavourable one both in Persia and Afghánistán.

COMMERCE AND TRADE.

For purposes of statistics the trade is divided into three classes, namely trade with Persia, Afghánistán and Baluchistán, and the following statement gives the details of the exports and imports of each class of trade for the three years ending with 31st of March 1905:—

IMPORTS.	1902-3. Rupees.	1903-4. Rupees.	1904-5. Rupees.
Persia	2,84,380	2,12,226	2,23,098
Afghánistán ...	1,49,593	2,04,292	3,55,231
Baluchistán ...	40,386	58,953	1,22,842
Total ...	**4,74,359**	**4,75,471**	**7,01,171**
EXPORTS.			
Persia	2,49,608	2,94,128	3,23,174
Afghánistán ...	1,03,836	75.486	1,07,208
Baluchistán ...	83,385	1,95,373	4,90,064
Total ...	**4,36,829**	**5,64,987**	**9,20,446**
TOTAL EXPORTS AND IMPORTS.			
Persia	5,33,988	5,06,354	5,46,272
Afghánistán ...	2.53.429	2,79,778	4,62,439
Baluchistán ...	1,23,771	2,54,326	6,12,906
Total ...	**9,11,188**	**10,40,458**	**16,21,617**

During this period Persian trade contributed about 44 per cent. of the whole and Afghánistán and Baluchistán each about 28 per cent.

Persian Trade.

The following table gives the details of Persian trade for four years ending with 1904-5 :—

Articles.	1901-2. Rupees.	1902-3. Rupees.	1903-4. Rupees.	1904-5. Rupees.
Imports (total) ...	**3,40,470**	**2,84,380**	**2,12,226**	**2,23,098**
Horses	1,18,680	82,650	48,078	60,900
Wheat	210	...	...	...
Ghi	49,588	9,410	2,370	31,723
Wool	7,280	3,966	8,186	18.465
Asafœtida	18,100	51,000	20,700	32,615
Silk	...	76.972	61,997	48,798
Hides	...	11,702	38,303	1,840
Fruits and vegetables	...	...	25,632	18,540
Jewellery etc. ...	...	...	...	8,000
Others	1,46,612	48,680	6,960	2,217
Exports (total) ...	**8,48,427**	**2,49,608**	**2,94,128**	**3,23,174**
Cotton piece goods...	2,62.695	1,11,838	1,54,396	1.49,169
Dyeing materials ...	1,94.265	46,699	85.351	1,21.169
Tea	1,57,130	16,035	20,179	7,676
Others	2,34,337	75,036	34,202	45,160

COMMERCE AND TRADE.

The decrease during 1902-3 was chiefly due to the drought and scarcity which prevailed in Seistán and the frontier District of the Persian provinces of Khurásán and Kirmán; but it was also owing in a great measure to the new Persian tariffs which came into force on the 14th of February 1903. The returns for 1904-5 give an increase both in exports and imports.

Afghánistán Trade.

The following statement gives the details of the trade with Afghánistán for the three years ending with March 1905 and the principal items of imports and exports:—

IMPORTS.	1902-3.	1903-4.	1904-5.
	Rupees.	Rupees.	Rupees.
Wool	17,392	69,817	1,38,817
Provisions-ghi, &c. ...	49,765	37,466	1,15,935
Grain and pulse ...	11,926	14,608	21,844
Drugs and medicines ...	42,700	61,660	66,660
Others	27,810	20,741	11,975
Total...	**1,49,593**	**2,04,292**	**3,55,231**

EXPORTS.	1902-3.	1903-4.	1904-5.
	Rupees.	Rupees.	Rupees.
Piece goods Indian ...	99,681	75,050	91,289
,, European...			9,542
Leather manufactured	...	276	3,276
Tea	...	160	2,160
Others	4,155	...	941
Total	**1,03,836**	**75,486**	**1,07,208**
Grand Total...	**2,53,429**	**2,79,778**	**4,62,439**

The chief bulk of the trade is carried on with Garmsél and the Eastern Helmand, that with Shorawák being inconsiderable. The latter is limited to about 500 maunds of grain and 100 maunds of wool besides firewood and melons; the exports, which consist chiefly of cotton piece goods, do not exceed an annual value of Rs. 2,000.

COMMERCE AND TRADE.

Baluchistán Trade.

The principal items of imports into Nushki are fruits, *ghí*, wool, drugs and miscellaneous articles, while the exports include cotton piece goods, grain, oils and tobacco. The value of these imports and exports for 1904-05 is given in the margin.

ARTICLES.	Value.
IMPORTS INTO NUSHKI.	Rs.
Fruits, vegetables and nuts including dates	47,146
Provisions—ghí	36,668
Wool	22,765
Drugs and medicines including asafœtida	10,997
Others	5,266
Total ...	**1,22,842**

EXPORTS.	Rs.
Cotton piece goods...	3,32,423
Apparel	3,259
Silk	3,644
Jute, gunny bags, &c.	1,778
Grain, pulse and rice	46,482
Sugar refined and un-refined	13,295
Spices, &c.	8,115
Oil petroleum and others...	3,293
Tobacco	4,172
Provisions	49,391
Leather manufactured	4,688
Others	19,524
Total ...	**4,90,064**
Grand Total...	**6,12,906**

Compared with the year 1903-4 the figures of import for 1904-5 show an increase of Rs. 63,889, which was in a large measure due to the influx of a considerable alien population employed on the railway construction works.

Trade with Khárán.

It is estimated that the annual value of the trade for 1904-5 with Khárán, including Jálk and Gwáshk amounted to about Rs. 1,55,000, imports Rs. 85,000 and exports Rs. 70,000. The former include wool valued at Rs. 40,000, *ghí* valued at Rs. 30,000 and dates valued at Rs. 15,000. The exports consist chiefly of Indian piece goods valued at Rs. 60,000 and rice, oil, sugar and tea, valued at Rs. 10,000.

COMMERCE AND TRADE.

The staple products of Seistán are grain, *ghí* and wool. Almonds, pistachio, turquoises and silk and horses are exported chiefly from Meshed.

Registration of trade.

Trade passing through Nushki is registered by a trade muharrir under the supervision of the tahsíldár. For the purpose of statistics an average camel load is shown at 5 maunds, and in the case of goods exported from Baluchistán the value, shown in the returns, is taken, whenever possible, from the bills of lading. Imports into Baluchistán are divided into two classes, (a) raw and (b) manufactured. Raw articles are valued at the current prices, and in the case of manufactured articles the value is obtained from the bills of lading, memoranda and receipts for customs. The monthly returns are checked by the tahsíldár and forwarded through the Assistant Political Agent Chágai to the Chief Collector of Customs Karáchi. The question of appointing a trade expert from the Customs Office at Karáchi to register trade at Nushki is under consideration (1905).

Duties on exports and imports and smuggling.

The rates of *sung* or octroi levied by the Khárán chief on articles brought from or taken into his country are as follows :—

	Rs.	A.	P.	
Exports from Khárán.				
Wool	10	0	0	per camel load of 8 standard maunds.
Ghí	8	4	0	per camel load of 6 standard maunds.
Wheat	1	2	0	do. do.
Dates	1	10	0	do. do.
Asafœtida ...	2	8	0	per standard maund.
Camel	3	0	0	per grown up camel.
	1	0	0	per camel colt.
Bullock	0	8	0	per head.
Donkey	0	4	0	do.
Horse	5	0	0	do.
Maghér	1	2	0	per camel load of 6 maunds.
Isabghol	1	2	0	do.
Shakargaz ...	1	10	0	do.
Sheep or goat ...	0	2	3	per head.
Imports into Khárán.				
Cloth	0	0	6	per rupee.
Oil, sugar, leather, groceries, etc.				6 pies per rupee on original price.

COMMERCE AND TRADE.

Imports of grain are exempt from all taxation.

The value of the *sung* recovered annually amounts to about Rs. 5,000.

Afghán customs.

All exports of wheat, *ghí*, wool and live stock from Afghánistán are prohibited, and special preventive posts, the numbers of which are given in the section on "Levies," are established along the Afghán border. Smuggling is, however, constantly practised and the Afghán Khásadárs are generally open to arrangement. Caravans sometimes evade payments by employing unfrequented routes and slipping through at night, and occasionally the stronger caravans make their way through the cordon by force. Exports into Shoráwak are also taxed, the usual rates being 2 *kabuli* rupees per camel load (6 maunds) of dates, rice, tobacco, etc, and 2 annas per piece or bale of cloth.

Trade agencies.

The purely local trade is chiefly in the hands of Hindu shopkeepers of Nushki, who have their agents along the trade route and in Khárán and Shoráwak. These agents are often *banias*, but also occasionally local men. The profits appear to be divided equally between the shopkeepers and the agents. In Shcráwak there are eight Hindu *banias* who act as agents for thè Nushki traders. In other parts of Afghánistán the trade is principally carried on by the Gurk, Popalzai, Karamzai and Karozai Afgháns and in a lesser degree by the Méngals, Sásoli, Pírkáni and Notézai Baloch.

The Seistán export trade is carried on by the Sarbandis and the Seistánis themselves. Several villages combine to form a *káfila* which is loaded with local produce and sent to either Quetta or Nushki under the charge of experienced traders. After the produce is disposed of, the *káfila* is reloaded with piece-goods, indigo and other articles and taken back to Seistán, where the goods are disposed of in the open market.

COMMERCE AND TRADE. *Chaudharis* and *dalals*.

In the Nushki bazar there is a *chaudhari* who acts as a spokesman for the tradesmen, assists the Government officials in collecting the bazar taxes and in the general management of the bazar. He is also the custodian of the *panchait* fund which is maintained by contributions levied at the following rates from the shopkeepers in the bazar:—

IMPORTS.	
Ata, etc.	6 pies per gunny bag.
Wheat	3 "
Dates	3 pies a maund.
Cloth	0-8-0 per load.
Rice, sugar, molasses, cereals crockery, etc.	0-2-6 per load.
EXPORTS.	
Ghí	0-6-0 per load.
Wool	0-4-0 "

These collections are expended on charitable purposes and for the maintenance of the Hindu places of worship.

Brokers.

There are two *dalâls* in the Nushki bazar whose business consists in arranging sales and purchases for traders, other than the Seistánis who generally send their goods to Quetta and Karáchi direct without the intervention of brokers. Brokers' fees are usually recovered from both parties to a transaction. The rates are subject to mutual agreement, but those ordinarily prevailing in Nushki are:—

Ata, wheat, barley, *judri*, etc. ...	6 pies per gunny bag.
Ghí...	0-2-0 a maund.
Wool	0-2-0 "
Dates	0-0-3 "

Development of trade.

The chief measures taken for the development of trade have been the appointment of a British Vice-Consul in Seistán (1899), the extension of the Railway to Nushki, the grants of rebates on freights carried by rail, the grant of free railway passes to bonâ fide Persian traders, the

improvement of the trade route and increased facilities for transport. COMMERCE AND TRADE.

Nushki is the natural starting point and terminus for caravans, and in former days one of the chief complaints of the traders was that the journey between Nushki and Quetta, which lay through a hilly and barren country unfavourable to camels, added greatly to their difficulties and expenses. Quetta itself owing to the cold and the high price of fodder was also unsuitable for camels and the caravans were often put to considerable loss both of animals and money during their stay at that place. These difficulties have now been terminated by the extension of the railway to Nushki. The difficulty of obtaining transport for goods despatched from India has also been met by an arrangement made with a number of well known camel contractors by which in consideration for a monthly grant of Rs. 300, they engage to supply an unlimited number of camels as far as Seistán and Meshed at reasonable rates (1905).

In 1901, a rebate of one-third of the freight was allowed by the North Western Railway on all goods booked from all stations on the railway to Quetta or Nushki for export to Persia by the Seistán route, and a rebate of one-eighth was given on goods imported from Persia. Since the 15th of April 1906 a rebate equal to two-thirds of the freight is allowed by the North Western Railway on all goods traffic, including live stock, to or from Persia. On the East Indian and Oudh and Rohilkhand Railways a rebate of one-third of the freight is allowed. These rebates are granted on the production of a certificate from the office of the Agent to the Governor General or from the Assistant Political Agent Chágai showing that the goods in question have been imported from or are for bonâ fide export to Persia.

COMMERCE AND TRADE.

Money can be transmitted from Quetta to Meshed and Seistán through the Punjab Banking Company to the branches of the Imperial Bank of Persia at those places.

The condition of the trade route has been steadily improved year by year. It is now perfectly safe, the supply of water has been greatly increased, *serais* have been built and telegraph and post offices and banias' shops have been established at all the more important stages. It is well suited for camel transport, as the road is practically level throughout and there is good and abundant grazing at all the stages. A special caravan *serai* for Persian traders was built at Quetta in 1902 and is now (1905) under the charge of a Government official, who also acts as the local agent for Persian and Seistán merchants. The question of the provision of a similar institution at Nushki is under consideration (1905).

MEANS OF COMMUNICATION.

Railways.

The Quetta Nushki branch of the North Western Railway which takes off at Spézand, a station on the Mushkáf-Bolán railway 16 miles from Quetta, was commenced in 1903 and opened for traffic on the 15th of November 1905. It enters the Chágai District at the Galangúr Kotal, 53 miles from Spézand, and runs in a westerly direction to its terminus at Nushki which is 82 miles from Spézand, 98 miles from Quetta and 606 miles from Karáchi.

From the Galangúr Kotal (mile 53) to Kishingi station (mile 69) the line follows the windings of the Galangúr *nullah*, keeping a general westerly direction. The Nushki Ghát is reached at mile 72; and the line then turns to the south and winds down the slope of the broken hillside for 7 miles over very difficult ground involving a succession of deep cuttings and heavy banks. From the foot of the Ghát the line turns again westward and reaches Nushki station at mile 82. The cost of the line is estimated at about a lakh of rupees a mile.

MEANS OF COMMUNICATION. Roads.

Table VI, Volume B, gives the details of the principal routes and rest houses in the District. The most important road is the Quetta-Nushki-Seistán Trade Route. This is the direct route between Quetta and Seistán (566 miles), and as far as Robát Kila (460 miles) lies within British territory. From Quetta to Sheikh Wásil (52 miles from Nushki) there are two roads known respectively as the 'Old Road' and 'the Railway road.' The former runs along the line of the Nau Hissár Káhnak Valley which lies to the west of the Chiltan range, while the latter follows the Quetta Kalát road as far as Tíri, and then turning in a westerly direction runs parallel to the railway line. The roads join on the Nushki side of the Sheikh Wásil gorge. The stages on the road are given in table VI, Volume B.

The whole length between Quetta and Nushki (94 miles) is unmetalled, but the gradients are fairly easy and the road is in good order and fit for wheeled traffic (1905).

From Nushki to Robát the road runs in a westerly direction and lies for the greater part through a barren and desert country. Levies are posted at all the stages, and at the principal ones there are telegraph and post offices and banias' shops where ordinary provisions can be obtained. The whole length of the road is practically level throughout. The following statement gives the distance from Nushki to Meshed showing the number of stages and average length of each :—

		Distance in miles.
1. Nushki to Kila Robát in British territory ...	21 stages, averaging about 18 miles ...	366
2. Kila Robát to Nasratábád (the capital of Seistán)	8 stages, averaging about 13 miles ...	106

MEANS OF COMMUNICATION.

	Distance in miles.
3. Nasratábád to Birjand. 9 stages, averaging about 20 miles ...	210
Total Nushki to Birjand via Seistán...	682
4. Birjand to Meshed, via Turbat-i-Haidari 11 stages averaging about 27 miles	292
Total Nushki to Meshed 49 stages averaging about 20 miles	974
Nushki to Birjand via Palang Koh avoiding Seistán.	
1. Nushki to Kila Robát as above—21 stages ...	366
Kila Robát to Birjand direct—13 stages, averaging about 21 miles	275
Birjand to Meshed—11 stages...	292
Total Nushki to Meshed 52 stages averaging 18 miles	933

The length of the route from Bandar Abbás to Meshed is 966 miles.

Passports. Travellers proceeding to Seistán and Persia are required to provide themselves with passports, which are issued by the office of the Agent to the Governor General in Baluchistán on the payment of a fee of one rupee. Applications for these passports should reach the office a full month before the date that the travellers are timed to reach Nushki. No passports are issued to natives of India unless they come provided with certificates of identity countersigned by the officer in charge of their Districts. The Persian Passport regulations, dated the 1st of March, 1900, require that every foreigner who wishes to travel in Persia must show his passport on entering Persian territory, and that it must be countersigned by a Persian Consular Officer.

Articles 12 to 15 of the Persian Order in Council of 1889 also require that every non-resident British subject arriving in Persia at a place where a consular office is maintained, shall register himself within a month of his arrival in a special register kept for the purpose, and obtain a registration certificate on the payment of a fee of Rs. 2-6-0. No person, who has not been registered, is entitled to sue or to receive the support or protection of a consular office.

MEANS OF COMMUNICATION.

The following note on the journey from Meshed to Askábád (168 miles) has been supplied by Major R. A. E. Benn, C.I.E. :—

Meshed to the Caspian.

"The journey from Meshed to Askábád (Transcaspian Railway) can now be performed in far greater comfort than formerly.

"The restrictions imposed by the Russians on travellers to Europe were greatly modified after the year 1900.

"A permit to travel by the Central Asian Railway, provided the traveller undertakes to proceed west and not east, is now little more than a formality and can be obtained through His Britannic Majesty's Consul-General at Meshed.

"A passport must be obtained from His Britannic Majesty's Consul-General in Meshed and must be viséd by the Russian Consul-General before starting.

"The service of pair horse "phaetons" was organised by the Persian Customs department under the supervision of the Belgian Director-General of Customs in Khurásán in 1903, and the cost for the through journey, Meshed to to Askábád, is 400 *krans* (Rs. 100) per carriage. Only very little luggage is permitted and the journey is accomplished in about thirty-six hours. Russian Customs formalities have to be gone through at Ghoudan the Perso-Russian frontier station.

MEANS OF COMMUNICATION.

"There are no rest houses on the road between Meshed and Askábád, and the traveller must make his own arrangements for food. There is a caravan *serai* at Kuchan where there is also a good native bazar, but the former is filthy to a degree and is scarcely fit for European habitation.

"The best hotel at Askábád for British travellers is the Hotel Reveillon where French is spoken.

"At the other hotels only Russian is spoken. There are European shops at Askábád and a fine railway station.

"Trains leave daily for Krasnovosk about 1 P.M., but the time table is continually being changed and information on this subject should be obtained at Meshed before starting.

"A "wagon restaurant" is attached to the mail trains.

"From Krasnovosk the steamers of the "Kavkas Mercury Company" are the best. They sail for Báku and Petrosk on alternate days.

"From Baku two routes can be taken, one via Moscow to Flushing, the other via the Black Sea to Constantinople, and thence by the Orient Express to Paris.

"The journey from Meshed to London can be accomplished in ten days."

Transport.

All goods moving within the country, otherwise than by rail, are carried by camels, which furnish the only means of transport. Though the country is eminently suited for camels and there are large numbers in the District, local transport is difficult to obtain as the animals are kept mainly for breeding purposes, the number of females amounting to over 70 per cent. of the whole. The regular carrying trade along the trade route is chiefly in the hands of the Seistánis, Ghilzais and Bráhuis from Kalát. Recently, as already mentioned a special arrangement has been entered into with contractors from Quetta.

For purely local trade female camels are often used, but these carry light loads and can only move by short stages. The local rates of hire (1905) for camels, when procurable, are as follows :— MEANS OF COMMUNICATION.

		Rs.	a.	p.	
From Dálbandin to Quetta	...	0	10	0	a day per camel.
,, ,, ,, Seistán	...	0	10	0	,,
,, ,, ,, Garmsél	...	10	0	0	per camel.
,, ,, ,, Jálk	...	10	0	0	,,
,, ,, ,, Máshkél	...	9	0	0	,,
,, ,, ,, Dízak	...	15	0	0	,,
,, Chágai to Khárán	...	4	0	0	,,
,, Nushki to Dálbandin	...	3	0	0	,,
,, ,, Khárán	...	3	0	0	,,
,, ,, Rod Garmsél	...	6	0	0	,,
,, ,, Shoráwak	...	1	8	0	,,

The first telegraph line was laid as far as Nushki in 1899. A field line was laid to Kila Robát in 1903, and was converted into a permanent line in 1904. At Robát the Indian telegraph connects with the Indo-European system. Third class offices have been opened at Nushki, Padag, Dálbandin, Merui, Mashki, Cháh, Saindak and Robát Kila, and there are also railway telegraph offices at Galangúr, Kishingi and Nushki. Telegraphs.

Branch post offices have been opened at Nushki, Dalbandin, Merui, Mashki Cháh Saindak, Amír Cháh and Kila Robát. With the exception of the office at Nushki which has a postal establishment, the other offices along the trade route are in charge of the local levy munshis, who receive special allowances for the work. Post Offices.

There are also post offices at the railway stations of Galangúr and Kishingi. The mails are carried by rail to Nushki daily, and from thence twice a week to Robát Kila by Postal levies.

MEANS OF COMMUNICATION.

In June 1905, the total number of levies employed on postal service was 67 and included 1 jemadar, 10 duffadárs and 56 sowars, and were distributed over 14 posts.

Beyond Robát Kila, there is a weekly service to Seistán (Nasratábád) and Meshed.

FAMINE.

Scarcity and its causes.

Actual famine is unknown, but scarcity is frequent, the primary cause being the failure of the winter and spring rains on which the pasturage as well as the greater part of the cultivation are entirely dependent. Experience has shown that the people can tide over one or two years of drought, but that a combined failure of both crops for a third season reduces them to considerable straits. The failure of the crops in the neighbouring countries and especially in Garmsél, from which the nomads of the western part of the District obtain the bulk of their grain, also greatly affects the condition of the people.

The first failure in recent years is said to have occurred in 1857, when, after a succession of bad years, both the spring and autumn harvests completely failed. The Méngals of Nushki, being at the time at feud with the Muhammad Hasnis of Garmsél, were unable to import their grain from that place and the rates of local wheat rose as high as 2 seers for the rupee. Many of the tribesmen emigrated to Kachhi and Sind, but it is said that over a thousand people died of starvation in the neighbourhood of Nushki alone. It is also said that in many places the people were so famished that they dug up the seed which had been sown for the next harvest. The nomads of the western part of the district do not appear to have been affected to the same extent, as they were able to import grain.

The next period of scarcity occurred in 1880-1 when the prices ruled very high and a large emigration took place to more favoured tracts. The presence of Dr. Duke and

the troops in Shoráwak, however, gave the people an opportunity of earning money by labour and transport. FAMINE.

The succession of unfavourable seasons which culminated in 1902 also reduced the people to great straits and the condition of the country has been described by Captain Webb-Ware in the following terms :—*

"The winter rains utterly failed with the result that unirrigated crops in no case reached maturity and in most cases the seed never germinated in the ground and the crops, on irrigated lands, were poor and stunted. The stocks of grain in the Bazar were limited and before long it was found necessary to import grain from Quetta to meet the actual needs of the District. The state of affairs was not local to the Chágai District, but it was the same throughout the neighbouring trans-frontier Districts of Shoráwak the Régistán and Garmsél. The Helmand ran dry below Rodbár: the Naizar and the Hámún lakes dried up resulting in the death from starvation, so His Britannic Majesty's Consul reported, of many thousand head of cattle and before the close of the spring, Shoráwak and the Régistán had almost been wholly deserted by their inhabitants who had been driven elsewhere in search of pasturage for their flocks. No famine of such a magnitude and embracing so large an area has been recorded for thirty years, and many prosperous years must elapse before the country recovers from the blow it has sustained. The nomad population inhabiting the Perso-Baloch Frontier were more fortunate than their fellows to the east, for the Máshkél date harvest proved an exceptionally fair one, and although the Baloch, who live there, were unable to obtain any grain yet they experienced no difficulty in keeping themselves going. The drought was broken in December by heavy rain, which although it began too late

* *Baluchistán Agency Administration Report* for 1902-3, appendix VII, page 30.

FAMINE. in the year to secure a good harvest, yet continued steadily up to the end of April providing the best grazing which the Chágai District has seen for many years."

Protection. As the revenue is chiefly levied in kind the results of unfavourable seasons adjust themselves automatically, and remissions of grazing tax and advances for the purchase of seed grain and stock have been found to be all that are usually required. The greatest safeguard against famine consists in the migratory habits of the people and their readiness to move off at once to more favoured tracts and also to the fact that grain and dates are easily procurable from Garmsél and Khárán.

The future source of protection probably lies in the extension of embankments for catching and storing the flood water.

Visitation of locusts. The District has been visited by locusts on several occasions. In the spring of 1895 swarms of locusts visited Nushki from the west which is the usual direction and caused considerable damage to the grazing and the young crops. Locusts again visited Nushki in 1900, when the autumn crop was almost entirely destroyed. The next year (1901) was followed by an even more severe visitation, and enormous swarms passed over the district eating up the crops and grazing, and killing the young trees which had lately been planted. Upwards of two-thirds of the date harvest in the south-western portion of the District are reported to have been destroyed.

CHAPTER III.

ADMINISTRATIVE.

ADMINISTRATION AND STAFF.

For purposes of administration the Chágai District is divided into three sub-divisions, namely the Nushki tahsíl, the Chágai sub-tahsíl and the Western Sanjráni Tract. The last named is under the immediate charge of the Assistant District Superintendent of Police; a tahsíldár and a náib tahsíldár are stationed at Nushki, while Chágai is in charge of a náib tahsíldár, who has his head-quarters at Dálbandin. The ordinary District staff consists of an Assistant Political Agent and an Assistant District Superintendent of Police. The latter is also in charge of the levies of the District. The tahsíldár and the náib tahsíldárs exercise judicial powers, supervise the collection of revenue, attend in person to *batái* and *tashkhís* work., and, in subordination to the Assistant Political Agent, control the tribes within their limits. They also keep themselves informed of what is taking place across the border in Afghán and Khárán territories. The subordinate revenue staff consists of a kánúngo, a muhásib and 3 patwáris in Nushki, and a muhásib and 3 patwáris in Chágai, who are paid servants of Government; and of tribal and village headmen locally known as *maliks*. The latter help in the collection of revenue.

JUDICIAL. Early methods.

The early and primitive method of settling disputes that arose among the tribesmen has thus been described by Pottinger, who was an eye-witness to the proceedings in March 1810.

JUDICIAL. "We are greatly entertained to-day, by seeing the *Sardár* hold a court of justice relative to a robbery or seizure that had been made in the night. The complainants were Mingall Brahooes (Méngal Bráhuis) belonging to the Toomun (*tuman*) of Bahádoor Khán (Bahádur Khán), which was about three miles off. The defendants were Belooches (Baloch) of Nooshky (Nushki). The parties pleaded against each other, and as they could not lay claim to the honor of doing so with elegance, they mutually seemed determined that the superabundance of their oratory should make amends for the quality, and the uproar was general for full three hours: each told his own story agreeable to his ideas, and all were speaking in the same breath, so that he who strained his lungs most had the best prospect of gaining attention. The *Sardár* listened to them with all imaginable patience and good humour, and when they were absolutely wearied with talking, he delivered his sentiments and judgment in due form, and the meeting broke up.

"From what I could learn of it, the trial appeared to be a trivial concern about the right of pasturage on a neighbouring hill, from which the Belooches tried to exclude the Brahooes by expostulation, and at length resorted to the unwarrantable expedient of seizing their flocks: the latter, however, got the victory, as the decision was in favour of their having at least an equal right with the former. In stating the opinion which was received without a murmur, the *Sardár* told his *khél* to recollect, that the Brahooes had originally settled near Nooshky with the sanction of the Khán himself, and that they were consequently entitled to enjoy every privilege. I observed that a relation of the Mingall chief attended with his people, and that Eidal* Khán, addressed himself

*Eidal Khán, Bolázai, Bádíni—Rakhsháni, great-grand-father of the present (1905) headman Alam Khán.

several times to him, during the investigation. These courts are always held in the *mihmán khánu* (*mehmán khána*), when it is unoccupied, but as we were in possession, the carpets and *numuds* (felts) were spread before the door, and the whole party sat down in the sun without any scruples : " *

JUDICIAL.

Present methods. Laws applicable.

The country comprised in the Chágai District has not been legally declared a part of the Agency territories, and the laws especially enacted for, or applied to, these territories have not been extended; but the Assistant Political Agent, Chágai has been authorised† to exercise within the limits of his charge all the powers of a District Magistrate and Sessions Judge as described in the Code of Criminal Procedure, as modified by the Baluchistán Agency Criminal Justice Law of 1896, and the powers conferred on the Court of a Political Agent under the Baluchistán Civil Justice Law. In subordination to the Assistant Political Agent, the tahsíldár of Nushki has been authorised to exercise the powers of a Magistrate of the 1st. class, as described in the Code of Criminal Procedure, modified as above, and of a Munsiff under the Baluchistán Agency Civil Justice law.†

The náib tahsíldárs of Chágai (*a*) and Nushki(*b*) are also empowered to exercise within their charges, in subordination to the Assistant Political Agent, the powers of a Magistrate of the 2nd and 3rd class, and of Munsiff and náib tahsíldár respectively. When exercising the powers

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**Travels in Baloochistan and Sinde* By Lt. Henry Pottinger (London 1816) p. 103.

† Government of India, Foreign Department letter No. 2864 dated the 1st November 1899, page 421 of Baluchistán Code, second edition.

(*a*) Foreign Department letter No. 1818—E/A, dated the 23rd October 1901.

(*b*) Foreign Department letter No. 2619 F/B, dated 2nd July 1901.

JUDICIAL. quoted above these officers have been directed to follow the spirit and principles of the Indian Penal Code (Act XLV of 1860), and of the Code of Criminal Procedure modified as above and of the Baluchistán Agency Civil Justice Law. The Assistant Political Agent has further been authorised to exercise the powers of a Deputy Commissioner under the Frontier Crimes Regulation, as applied to Baluchistán, and of a Sessions Judge as described in the Frontier Murderous Outrages Regulation (IV of 1903).

All questions of appeal, reference, confirmation and revision in connection with the proceedings of these officers are dealt with by the Agent to the Governor-General in Baluchistán, or by the Court of the Judicial Commissioner, in the same manner as they are dealt with in Agency Territories.

For purposes of civil justice, the Assistant Political Agent possesses jurisdiction to try original suits without limit as regards value. A decree or order made by him in an original suit of value not exceeding five hundred rupees and in an appellate suit, the value of which does not exceed one thousand rupees, is final and subject only to revision. In criminal trials no appeal lies in cases in which he passes a sentence of imprisonment for a term not exceeding one year, or of fine not exceeding one thousand rupees, or of whipping, or of all or any of those punishments combined. The powers of the tahsíldár, Nushki, and the náib tahsíldár, Chágai, are limited to civil suits the value of which does not exceed three hundred rupees, while the náib tahsíldár of Nushki has jurisdiction to try suits of a value not exceeding fifty rupees and of the nature cognizable by a Court of Small Causes. The Frontier Crimes Regulation (III of 1901) which with certain modifications has been applied to the Agency Territories, and is taken as a guide

in Chágai, regulates not only criminal cases, but also disputes which are likely to lead to blood feud and crime, and provides the method for referring cases to tribal elders. JUDICIAL.

From 1896, when the Chágai District first came under British control, up to 1902, the methods usually adopted were to dispose of all cases either by executive action, or by reference to tribal elders, the object aimed at in every case, civil or criminal, being to arrive at a settlement which, having due regard to tribal custom and sentiment, would be acceptable to both parties. A civil suit or a criminal case, in which compensation was awarded, was not considered finally closed until the claim had been fully satisfied, and no distinction was observed between an original suit and the execution of a decree. Under this system the action of the subordinate officers was limited to preliminary enquiry, and the final orders in each case were passed by the Assistant Political Agent himself. The details of civil suits disposed of between 1897-8 and 1904-5 are shown in table VII and of criminal cases in table VIII, Volume B. In the quinquennial period 1898-9 to 1902-3, the annual average of civil suits was 162 and of criminal cases 52. Statements classified and aranged in the Assistant Political Agent's office for the three years 1900-1 to 1902-3 show that the annual average of civil suits was 231, of which 137 related to moveable property, 76 to immoveable property and 18 to betrothal and marriage. The average number of criminal cases during the same period was 65, of which 3 were of murder, 22 of robbery and theft, 22 of cattle lifting, 1 of counterfeiting coin, 2 of matrimony, 1 of adultery and rape, while 14 were miscellaneous. The fact that no appeals were preferred during this period, would seem to indicate that the methods adopted were satisfactory and suited to the idiosyncrasies of primitive people. With

JUDICIAL. the commencement of the construction works on the Quetta-Nushki Railway a large alien population was attracted to the District, and cases connected with them were disposed of in accordance with the usual judicial procedure. The average number of civil and criminal cases thus disposed of in 1903-4 and 1904-5 was 81 and 17 respectively.

Jirga cases. The system of the disposal of disputes of all sorts by the elders of villages or tribes is indigenous to the country; the procedure is simple and has many advantages. It has been regularised by the Frontier Crimes Regulation (III of 1901), which with certain modifications has been applied and extended to the Agency Territories and which is followed as a guide in Chágai. The system possesses special advantages when worked in conjunction with the levy system, under which crime in the areas outside the Nushki Town and the railway stations is investigated by the headmen and levies. At the same time it requires continuous supervision by the District Officers to prevent abuses arising from ignorance or partiality.

Captain Haworth, the Assistant Political Agent (1905) writes as follows regarding the cases which are generally referred to *jirgas* :—

Local and *sháhi jirgas*. "Cases of theft, cattle lifting, adultery and murders (in some cases) are referred to the local *jirgas*. Complicated cases of murders and adultery, or cases of rights of lands and water, and those cases which the local *jirgas* commit to the *sháhi jirgas*, are put before the *sháhi jirgas*."

System of election of members. "For the local *jirgas* those chiefs, *sardárs* or *motbars* are appointed members who have no interest or concern with the parties whose cases are put before them. Usually the tahsíldár or the náib tahsíldár in charge of the tahsíl presides over the *jirgas*. When cases are referred to the *sháhi jirgas*, at either Quetta or Sibi, the

principal *Sardárs* or *motbars* attend, accompanied by the tahsíldár of Nushki, or the náib tahsíldár of Dálbandin who puts the cases before the *jirgas*." JUDICIAL.

"All cases concerning the Baloch and Bráhui inhabitants of the District are invariably put before *jirgas*. The majority of cases of adultery occur among the Réki tribe of the western frontier. Adultery, however, is nowhere common, and murder has been of rare occurence since British occupation. Practically all cases of murder have been committed by transborder robbers. Cattle-lifting is a common crime ascribed to nearly all the tribes of the District, although the cases of cattle-lifting by men from across the border are the most common. Since the District has been taken over from His Highness the Khán, crime among the inhabitants has greatly decreased."

Classes resorting to *jirgas* and the most prevalent kinds of cases.

"As a rule the local *jirga* awards are taken as final decisions by most of the inhabitants. The Méngals sometimes prefer to have their cases put before the *sháhi jirgas*, whose awards are invariably taken as final. Hitherto very few cases have arisen in which an appeal has been preferred, and as the general results of such appeals were against the appellants, the percentage of such appeals is infinitesimal."

Acceptance of findings by parties and appeals.

The function of the members of a *jirga* is to come to a finding of fact on the issues placed before them; and the award is then submitted to the Assistant Political Agent with whom alone lies the power of passing final orders in the case, and of determining and awarding punishment under the Frontier Crimes Regulation.

Ordinarily, the Assistant Political Agent may sentence an offender to seven years' rigorous imprisonment; a sentence exceeding this term, up to a maximum of fourteen years, must be confirmed by the Agent to the Governor General.

JUDICIAL. Statistics.

Details of cases tried by *jirgas* up to 1904-5 will be found in table IX, Vol. B. During the quinquennial period 1898-9 to 1902-3 the annual average number of cases disposed of was 37, of which 2 were referred to the *sháhi* and 35 to local *jirgas*. They comprised 4 cases of robbery, 13 of cattle-lifting, 1 of murder, 7 relating to land and revenue, 1 to betrothal, while 11 were miscellaneous. The number of cases thus disposed of in 1903-4 and 1904-5 were 25 and 30 respectively. In the latter year there were 1 murder case, 5 cases of cattle-lifting, 11 of land and revenue, 1 relating to betrothal and 12 miscellaneous.

Registration.

The Indian Registration Act (III of 1877) is not in force in the District (1905). Mutation registers are also not maintained in the tahsíls, and the people do not appear to have realised the advantages of registration. Deeds regarding sales, mortgages and loans are usually drawn up by *mullás*, and the headman of the village or tribe occasionally affixes his seal as a witness.

FINANCE.

The financial resources of the District are limited and are derived principally from land revenue, including grazing tax, stamps, excise and assessed taxes, and miscellaneous revenue.

Table X in Vol. B. contains details of revenue by tahsíls for each year from 1897-8 to 1904-5. During the four years (1897-8 to 1900-1) the annual average receipts amounted to Rs. 3,261. In 1904-5 the receipts were Rs. 30,060, of which Rs. 20,064 were contributed by land revenue, Rs. 2,498 by stamps, Rs. 6,700 by excise, while the balance was made up by receipts under Law and Justice, assessed taxes, and miscellaneous receipts. The increase during this year, contrasted with the average of the quinquennial period, was due to the imposition of revenue in the Chágai sub-tahsíl and to the influx of a very considerable number of alien workers on the Quetta-Nushki

Railway, which added to the receipts under Court fees, Stamps and Excise. JUDICIAL.

LAND REVENUE. Early revenue history. Nushki.

During the Mughal rule Nushki seems to have formed a part of the Shoráwak District of Afghánistán. After the murder of the Mughal Governor (to which a reference has already been made in the Section on Population) Bádín went to Kábul and there agreed to pay a fixed annual assessment of forty camels. This appears to be the earliest record of the payment of revenue to the Afghán rulers, and the tribute seems to have been continued up to the time of Mír Abdulla Khán, the Khán of Kalát, who, taking advantage of the confusion then prevailing in Afghánistán, annexed the southern part of Shoráwak to Kalát (1715-6). In the time of Mír Nasír Khán I (1750-1), Bái Khán, the headman of the Bádíni Rakhshánis, Burj Ali Khán, chief of the Jamáldíni Rakhshánis, and Ahmad Khán, chief of the Méngals, placed themselves formally under the protection of the Khán and agreed to pay him and his successors land revenue at the rate of one tenth of the gross produce, and to assign the proprietary right of 2½ *shabánas* of water and land in each existing *káréz* and in the Khaisár stream. It was also agreed that a similar share should be assigned in all *kárézes* that might be constructed in the future.

Cesses.

To this revenue demand were added the following cesses, which were originally intended as payment for the Khán's officials :—

(1) *Haq-i-kásgi* (wages for measuring grain) which was recovered at the rate of 4 *kásas* per *khori* (produce of any one holding) provided that the crop exceeded one *kharwár* (about 10 maunds).

(2) *Haq-i-chungi* (octroi) recovered irrespective of yield at the rate of ½ *kása* per *khori*.

LAND REVENUE.

(3) *Haq-i-thappo* (share due to the official who seal the various heaps of produce) recovered irresp tive of yield at the rate of 1 *kása* per *khori*; c half of the gross returns being made over to t Khán and one half to the *náib's* escort.

(4) *Haq-i-náib* (share due to *náib*) recovered at t rate of 1 *kása* per *khori* when the yield of t crop exceeded 1 *kharwár*.

(5) *Haq-i-náibi-kharch*. The amount of this cess w not definitely fixed; the usual custom was f the *náib* to take two sheep, and from 60 *kásas* 3 and 4 maunds from each circle.

The *náib* was also entitled to a certain amount of fi wood free of cost from each *zamíndár*, and the Khán a his forces were supplied with free firewood and *bhúsa* o occasion of each visit paid to Nushki by His Highnes The *náib* could also call upon the *zamíndárs* to repa Kalát State buildings by forced labour, and the Nushk *banias* were bound to supply the Khán's *náib* with sack ropes and *jhúls*, etc., according to his requirements.

Water-mills.

There were four water-mills on the Nushki strea which were nominally assessed at one-tenth of their gro earnings, but in practice paid nothing, though the owners were required to grind all State grain, includi corn for the use of the *náib's* escort, free of charge.

Sung.

In addition to the revenue and cesses imposed by t Khán, the Zagar Méngal chief also levied *sung* or tran dues on caravans passing through Nushki. Since 187 one half of this income was paid to His Highness t Khán. There is no record of the actual amount of t annual collections, but in 1896 it was estimated that th amounted to about Rs. 15,000 for that year. This t was abolished in January 1897 on the recommendation Major McMahon, C. S. I., C. I. E., then British Comm sioner with the Baloch Afghán Boundary Mission, and,

lieu of his share, the Zagar Méngal chief was compensated by Government by an annual grant of Rs. 7,000, of which Rs. 3,400 were to be treated as his personal allowance and Rs. 3,600 set apart for the maintenance of a Méngal levy post. LAND REVENUE.

No figures are available regarding the amount of land revenue realized by the Khán, but in 1899 his *náib* informed Mr. Colvin, then Revenue Commissioner, that it amounted to about Rs. 5,000 per annum, and Mr. Colvin's enquiries placed the estimate for 1898 at about Rs. 4,700.

Chágai.

Very little is known of the ancient revenue system of Chágai. It formed part of the kingdom of Ahmad Sháh Abdáli (1747—1773), but the country was then occupied by nomads, and there was little or no cultivation. During the reign of Sháh Shuja-ul-Mulk (1801 to 1809), one Malik Sajádín is said to have been the *náib* or deputy governor of the District, and in his time the revenue paid by the people consisted of an annual tribute of 10 maunds of honey and the same quantity of *gwan* (*Pistacia khanjak*) fruit. In the time of Sardár Ján Bég II the Sanjránis began to levy taxes from the Tauki and other hill tribes as detailed below :—

(a) *déno*, i.e., a milch goat from each family in the spring, (b) *pursi*, a goat from each family on the occasion of a death in the chief's family, and (c) *bijári*, a goat from each family on the marriage of a male member of the chief's family. In addition to the above the Sanjránis were also accustomed to borrow one camel from each herd (*bár pusht*), free of hire, when required for the purposes of trade or travel.

Sung.

The imposition of *sung* dates from comparatively recent times, and was first levied by Sardár Sarfaráz Khán, father of Ali Khán, the present Sanjráni chief. The rates at which these tolls were levied have been mentioned under **Trade.**

LAND REVENUE.

The post of *náib* is now hereditary in the family of Kamál Khán, a Baréch who came to Chágai from Afghánistán during the time of Sardár Ján Bég II, and married the Sardár's daughter. He was appointed *náib* of the Sanjránis and given one-fifth of the *mahsúl* or revenues recovered by the Sardár. During Sardár Sarfaráz Khán's time, Dost Muhammad, Baréch, the present *náib* was entitled to one-seventh of the *sung* and other dues. The title still exists, but the post is practically a sinecure, and in lieu of his former rights the present incumbent has been granted an allowance of Rs. 50 a month, and enjoys certain *muáfis*, to which a reference will be made hereafter. About 1888 Ali Khán was expelled from Chágai by a small Afghán force, and fled to Quetta where he placed himself under the protection of Sir Robert Sandeman, the then Agent to the Governor-General. He was permitted to reside at Quetta, and with the sanction of the Government of India was granted a small allowance.

At the conclusion of the Baloch-Afghán Boundary Commission of 1896, Ali Khán was re-instated in Chágai by order of the British Government. In 1897, on the recommendation of Captain Webb Ware all transit dues and other taxes levied by the Sanjránis were abolished, and as compensation the Sardár was granted an allowance of Rs. 350 a month from the Chágai levy service.

Revenue on asafoetida.

During the ascendency of the Sanjránis small dues were also recovered from the Kákars, Bábars and other Patháns, who came yearly to collect asafœtida in the Koh-i-Sultán and other mountains in the neighbourhood of Amír Cháh. These dues amounted to about Rs. 300 per annum and were divided into three equal shares among the Chágai, Chahár Burjak and Bandar-i-Kamál Khán Sanjránis. The right of the transfrontier Sanjránis lapsed when Chágai was formally declared to be a part of British Baluchistán.

When Nushki was leased from His Highness the Khán of Kalát in 1899, the arrangements for the collection of revenue then in force were continued, and exist with slight modifications up to the present time (1905). The principal modifications are that the *haq-i-náibi* is no longer levied, a share of the *bhúsa* and other fodder is taken, and revenue is assessed on green crops—*pálézát*. The question of abolishing all cesses, and raising the rate of revenue from one-tenth to one-sixth of the produce is under consideration (1905.) LAND REVENUE. Modern developments. Nushki.

The revenue on *pálézát* is now (1905) recovered in cash at the following rates: in a field in a first class circle at Rs. 4, in a second class circle at Rs. 3 and in a third class circle at Rs. 2 per acre. *Pálézát.*

During the Khán's rule no revenue was levied on *bhúsa*, but State officials were supplied with fodder and firewood free of cost. This system was finally abolished in 1900, and *bhúsa*, *karab* (*juári* stalks), *kati* (chaff of *juári* ears) are now regularly assessed at the rate of one-tenth of the produce. *Bhúsa.*

In April 1901, the Local Government sanctioned the levy of revenue at one-eighth of the produce from that portion of the Chágai tahsil which lies to the east of Galacháh from Merui to boundary pillar No. CLXXV on the Afghán border. In 1902, the rate was raised to one-sixth. Since 1898-9 a small tax in kind has been levied on asafœtida collected by trans-frontier Afgháns and Zhobis, the rate being 7 per cent. of the total amount. Chágai.

In the Chágai sub-tahsíl grazing tax or *tirni* has been recovered since 1901 from all flock owners, whether permanent or nomads, at the rates shown in the margin. Grazing tax.

	Rs.	a.	p.
Camel, male or female ...	0	8	0
Bullock or cow	0	4	0
Horse...	0	6	0
Donkey	0	4	0
Sheep or goat	0	1	0

LAND REVENUE.

In the Nushki tahsíl in accordance with the custom prevailing during the Khán's administration, no cattle tax is levied from the permanent inhabitants; but since 1900-1 *tirni* at the Chágai rates, as detailed above, has been imposed on all trans-frontier tribesmen who pasture their herds of camels and sheep and goats within the limits of the tahsíl. The question of extending this tax to the settled inhabitants of Nushki is now under consideration (1905).

Special grazing concessions to caravans.

In the interests of the Nushki-Seistán Trade Route, special concessions have been granted, since November 1899, to Persian and Seistán caravans who are not required to pay any grazing dues anywhere in Baluchistán, provided that their stay in the country does not exceed four months after they have been granted passes at Nushki. In the event of their exceeding this limit, they are charged a sum of 4 annas for each camel on their return to Nushki. The passes are granted by the Assistant Political Agent, and hold good throughout Baluchistán.

Results of revenue collections during 1899-1900 to 1904-5.

The area of cultivation in the District is small in comparison with the large tracts of waste and barren lands; and as the cultivation itself consists chiefly of crops raised on unirrigated lands, the harvests are precarious and uncertain, and the amount of the revenue varies considerably according to the character of the seasons. A year of drought is also unfavourable for grazing, and affects the revenue derived from the taxes on camels and cattle. Thus the returns of the grazing tax show marked fluctuations during the past few years in the Nushki tahsíl, where in addition to the variations of the seasons a great difficulty is often experienced in differentiating between the animals belonging to the indigenous population and those of their fellow tribesmen from across the border. This is especially marked in the

case of the Méngals, who live partly in the District and partly across the frontier. LAND REVENUE.

The figures for the land revenue realized in cash and in kind from 1899-1900 to 1904-5 are shown in table XI, Vol. B.

The average of the total land revenue of the District (including grazing tax) during 1901-2 (the year when revenue was first taken in Chágai) to 1903-4 was Rs. 14,830, of which the Chágai sub-tahsíl contributed 37·5 per cent. In 1904-5 the revenue rose to Rs. 19,786 of which the Chágai contribution amounted to about 31 per cent. In Chágai the annual average of the grazing tax receipts amounted to 66·7 per cent. of the total land revenue of the sub-tahsíl. In 1904-5 the income derived from this tax rose to 83·6 per cent. In the Nushki tahsíl the receipts under this head averaged about 5 per cent. of the total land revenue during the four years ending with 1903-4. In 1904-5 they rose to 8·1 per cent.

The revenue on asafœtida recovered in the District from 1898-9 to 1903-4 averaged Rs. 242 per annum. In 1904-5 the actual receipts amounted to Rs. 278. Since the 1st of April 1904, the income derived from this source has been credited under "Land Revenue."

Collection of revenue. *Batái.*

The "*batái*" system, or system of payment in kind after an actual division of the crops is usually employed for the collection of revenue. The system has many drawbacks, but it is suited to the peculiar conditions of the District, where the greater part of the cultivation consists of crops grown on unirrigated lands. It is also suited to the habits and traditions of the people, and has the advantage of being adapted to the uncertainties of the harvest.

A detailed description of *batái* is given in Chapter III of the Quetta-Pishín District Gazetteer, pages 234-235, but a brief account of the procedure may be repeated. The grain on the threshing floors is divided into ten equal

LAND REVENUE.

shares (in Chágai into six shares) by the *zamíndárs*. One share is selected on behalf of Government by the revenue officer supervising the *batái*, and the grain is then put into bags, which are sealed in the presence of the officer and carried by the *zamíndárs* to the nearest granary or godown where the grain is weighed before it is finally stored. The grain is then disposed of by public auction, the final bids at which have to receive the sanction of the Revenue Commissioner. An equal weight of *bhúsa* and fodder is assessed at the same time. In the Nushki tahsíl, the cesses, to which a reference has already been made, are recovered, according to their rates, in kind. The Government share of revenue is also sometimes obtained by *tashkhís* or the appraisement of crops.

Grazing tax. The collection of grazing tax in both tahsíls is usually carried out by actual enumeration of the flocks and herds, but *ijáras* or temporary contracts are occasionally made with small and remote tribes. Owing to the great distances and the migratory habits of the tribesmen, collection by enumeration is often attended with considerable difficulty; the most favourable time being the lambing season when the flockowners are necessarily stationary for short periods.

Asafœtida. The revenue on asafœtida is recovered in kind, and the Government share is usually sold in the Quetta market. The actual collection is entrusted to the levies stationed at Amír Cháh and Mashki Cháh under the supervision of the náib tahsíldár at Dálbandin.

Land tenures. The origin of proprietary tenure. The land tenures of the District are of a simple nature, and Government is the sole collector of revenue. In the Nushki tahsíl, the proprietary body consists principally of the descendants of the original settlers and of the various tribes who immigrated at subsequent periods and acquired possession by assignment, purchase, *khat kashi*, or as blood compensation.

The Mándais, who claim to have come from Arabia, were the earliest settlers, and according to their traditions the country before their arrival was a desert waste. They appear to have remained in sole possession for some eleven generations, when being oppressed by the exactions and cruelties of the Mughal *hákims*, they called in the assistance of the Jamáldíni Rakhshánis, a Baloch tribe then living in Khárán. After the arrival of the Rakhshánis, the land was equally divided between the males of the two tribes. Later on, these tribes, finding that they were not strong enough to cope with their Mughal oppressors, summoned the Bádínis, also a Rakhsháni Baloch tribe which had emigrated from Rakhshán and settled in Khárán. The stratagem, by which the joint tribes contrived to oust the Mughals, has already been described in the section on Population. LAND REVENUE.

After the disappearance of the Mughals the lands were divided as follows :—

1. Bádínis.—One-half of Nushki stream, one-fourth of Bághak spring, the Mal lands, and a portion of the Dák lands extending from the Shoráwak border to Kuléi.
2. Jamáldínis.—Five-twelfths of the Nushki stream, one-fourth of the Bághak spring, the Dédár, Gomázgi and Bundkhi lands, and five shares of the Dák lands from Kuléi to the border of Chágai.
3. Mándais.—One-twelfth of the Nushki stream, one-half of the Bághak spring, Khudáband and Jabár lands, and the two shares out of the Dák lands from Kuléi to the border of Chágai.

These divisions have, in the main, continued up to the present day, and the Mándais still live at Bághak, the Jamáldínis in the Jamáldíni villages near Nushki and the

LAND REVENUE.

Bádínis on their lands near the villages of Mírs Kásim Khán and Alam Khán.

Zagar Méngals.

Some time later the Zagar Méngals from Kalát entered the District, and settled down in the neighbourhood of Nushki under the leadership of their *sardár*, Mír Páind Khán. They do not appear, in the first instance, to have owned much cultivation, but confined themselves chiefly to grazing their flocks on the Dák lands and in Régistán. They subsequently determined to return to Kalát, but were not permitted to do so by Mír Abdulla Khán, the then Khán of Kalát (1715-6), who recognised the advantage of retaining a powerful tribe at Nushki to guard his frontier. The Méngals were accordingly compensated by the grant of one-third of the Bádíni share of the Nushki stream, 2½ *shabánas* of the Bághak *káréz* and the 2½ *shabánas* of the Nushki stream (which were the private property of the Khán). The one-third of the Bádíni water, given to the Méngals, was divided equally between the Trásézai and Páindzai sections.

The quarrel between the Rakhshánis and the Méngals which resulted in the migration of the latter to Garmsél has already been briefly referred to under History. On their return to Nushki, the grants made by Mír Abdulla Khán were reaffirmed by Mír Nasír Khán the Great, who in addition conferred upon them the following unirrigated lands situated to the west of the Kohna Dhor :—

Landi, Bédi, Khéshki, Roba, Lidi, Hakímwál, Mazárwál, Tanha-rég, Sangín, Sokhtak and Buti.

This settlement was followed by several years of warfare during which the Méngals suffered severe losses, while large numbers of the Rakhshánis were compelled to leave the country. A section of the Mándais also migrated to Seistán. A peace was finally concluded between the

Bádíni Rakhshánis and the Méngals by Mír Nasír Khán II who imposed the following conditions :— LAND REVENUE.

(a) That the land and water rights granted to the Méngals by Mír Nasír Khán I should be retained.

(b) That the Méngals should receive as blood money or compensation for losses incurred during the fighting, one *shabánaroz* of land and water in the Nushki stream, one water mill, the lands known as Sordam, Shahbázwál and Mákaki and one-half of the Bái Khán land.

After the death of Mír Nasír Khán II, a peace was also concluded with the Jamáldínis on the conditions that the Jámaldínis should give one *shabána* of the Nushki stream to the Méngals, and one-half of the lands possessed by them in Dák, namely one-half of the following lands :—Dashtak, Gazak, Sháh Díwána, Zangi-náwar, Chár Sar, Kuléi, and Janán.

A fresh agreement was made subsequently in the time of Mír Khudádád Khán, the present ex-Khán of Kalát, by which the half shares of Zangi-náwar, Dashtak and Chár Sar lands were restored to the Jamáldínis. This distribution generally holds good at the present time, although the Méngals have since acquired several other lands by purchase in the Bághak and Nushki circles.

The Sáhibzádas of Nushki own 3 *shabánas* of water in the Khaisár stream, which were assigned to them as a free gift by the Rakhshánis in the time of their ancestor, Hasan Taraka. The Sáhibzádas.

Other small properties have been acquired by purchase or *khat kashi* from time to time by the Lángavs (a Bráhui tribe having its headquarters at Mungachar in the Kalát State) and the Baréch, a Pathán tribe living on the Shoráwak border. Other tribes.

The Hindus of Nushki have also purchased a small share in the Khaisár stream, and hold mortgages in about

LAND REVENUE.

8 *shabánas* of the same stream.

Chágai

In Chágai the lands and water are generally the property of the Sanjránis, Baréch and to a small extent of the Saiads and Notézais. The Notézais seem to have been the first comers, and, according to their traditions, the country, at the time of their arrival, was inhabited by Arab nomads. The supersession of the Notézais by the Saiads, and of the latter by the Sanjránis, has already been described. The Baréch appear to have acquired their possessions either by marriage, purchase or *khat kashi.*

Custom of periodical distribution.

The division of the irrigated land in both the Nushki and Chágai tahsíls, and of the dry crop lands in the latter tahsíl, is generally permanent (*pukhta taqsím*). The same condition holds good in Nushki as regards the unirrigated lands which are *lath bast* (i. e., which have been embanked) and which are situated at Dédár, Sarmal, Máki and in the Mal circle, and at Gomázgi, Kishingi and Inám Bostán. The Trásézai Méngal lands at Band Chandan Khán are also permanently divided. The tracts of land on the Dák plain, known as Bái Khán, Dashtak, Sordam, Badrawál, Amírwál and Siáhdam are divided periodically when there has been sufficient rain to ensure cultivation; the system of division being *per stirpes* or *mard bakhsh*, in accordance with which each adult male belonging to the tribe is allotted an equal share. The families of the Bádíni and Jamáldíni headmen have, however, certain proprietary rights in these lands, and are entitled to receive their *haftak*, or one-seventh of the whole, in addition to their shares as individual tribesmen. In certain holdings, which have been acquired as "compensation for blood" and for losses incurred in fighting, the division is *per capita* or *pis bakhsh*, and the actual descendants of those who lost their lives or incurred losses are only entitled to a share. The Zangi-Náwar tract, which is owned by the Jamáldíni and Mándai tribes, is divided decennially under the *mard bakhsh* system.

LAND REVENUE.

Tenants and Tenancies.

The majority of the tenants in the District are tenants-at-will or temporary tenants, who are known by the name of *bazgars*. These tenants cannot acquire any rights to the prejudice of the owners, and the arrangements by which they are employed are usually purely temporary ones. They are generally appointed at the time of the spring sowings, and, in accordance with the custom of the country, are not liable to be ousted until the autumn harvests have been gathered.

The other class of tenants are *lath band* tenants, who are met with in the dry-crop areas, where they have expended much labour in the construction of embankments or *laths*, and have consequently acquired certain occupancy rights, of which they cannot be dispossessed as long as they maintain their embankments in proper repair, do not wilfully neglect to cultivate the land, and pay the *bohál* or landlord's rent. If they fail to fulfil these conditions they can be ejected on the payment of compensation for the labour expended in construction, the amount of compensation being determined by arbitration. The rights are alienable, and can be sublet or transferred by sale.

The details of the division of produce between the landlord and tenant have already been dealt with in the section on **Rents**. In Nushki the tenants are (a) the Asiábáns, a people from Khárán who have settled in the tahsíl for some three generations; these are Sohri Baloch and cultivate the lands belonging to the Bádínis; (b) the Batos or tenants of the Jamáldínis; these belong to no particular caste or tribe, and have served the Jamáldínis for over thirty years; and (c) the Lángavs, who are found in the greater part of the District cultivating the lands of the Méngals and Rakhshánis in the Nushki tahsíl, and of the Sanjranis in Chágai.

Size of holdings.

No regular survey or settlement has been carried out in the District, and no data are, therefore, available regarding the size of holdings.

LAND REVENUE. *Lambardárs* and their remuneration.

The headman or *malik*, as he is locally called, has always been a prominent figure in the village and tribal organization. At the present time his duties are primarily to assist in the collection of revenue, to keep order, and to inform the tahsíl officials of the occurrence of any serious crime and of other important matters, affecting either his own people or happening across the border. The *maliks* are appointed by the Assistant Political Agent on the recommendation of the tahsíldárs, and are usually men who have hereditary claims, are proprietors of large areas in their *mahâls*, and are able to command respect from their tribesmen.

In the Chágai tahsíl they receive remuneration (*haq-i-malikána*) at a uniform rate of 5 per cent. on the gross land revenue, including cattle tax. The question of their payment in the Nushki tahsíl is still under consideration (1905).

System of remissions and suspensions.

As the revenue of the whole District is levied in kind, the results of indifferent seasons or calamities adjust themselves automatically, and the necessity for remission or suspension of revenue seldom arises. Remissions of cattle tax are, however, sometimes granted when there has been an unusual mortality among the flocks owing to drought and scarcity of fodder.

Exemption from revenue on improvements.

The rules regarding exemption from revenue on improvements are as follows:—(a) when waste land is reclaimed with the aid of a *tahávi* loan and is brought under cultivation, no revenue may be assessed on it until the expiration of three years, reckoned from the beginning of the harvest reaped after the reclamation was effected. If no *takávi* loan was obtained, the period of exemption may be extended to four years; (b) when *khushkába* land has been improved by irrigation with the aid of a *takávi* loan, the period of exemption is four years; in the case of waste land which has been improved by irrigation or of an

improvement either of *khushkába* or waste which has been made without the aid of a loan, the period for exemption may be extended to five years. In special cases these periods may be further extended.

LAND REVENUE.

Waste lands.

No final decision has yet been arrived at with regard to waste lands. The matter is still under consideration, and in the draft of the Baluchistán Land Revenue Regulation it was proposed to include the following provision on the subject, which is based on a similar section in the Punjab Land Revenue Act; namely that "all forest, quarry, unclaimed, unoccupied, deserted, or waste land, or spontaneous produce, or other accessory interest in land, shall be presumed, in the absence of some established usage, to be the property of Government." Owing to the large area of waste lands and the scanty population, the question in this District has not assumed an acute form, and the following procedure has usually been adopted in practice. If no proof of private ownership is forthcoming, waste lands are, as a rule, held to be Government property, the disposal of such lands resting with Government. The people of the District are, however, given the prior opportunity to bring such lands under cultivation, and lands to outsiders are allotted only when the indigenous wants have been fully provided for.

Restrictions against transfer of lands to non-agriculturists.

Since the time of Mehráb Khán II, ninth Khán of Kalát, (1816-17), the Hindus of Nushki have gradually been acquiring lands by mortgage or purchase, with the result that they now (1905) possess some 33 *pás* of water and land, the value of which is estimated at about Rs. 50,000. No orders have, as yet, been issued restricting the transfer of lands to aliens, but under the provisions of the Civil Justice Law, 1896, agricultural land cannot be sold in execution of a decree without the sanction of the Local Government, and it is usually made a condition of the sale that the land shall not be sold to non-agriculturists. In the draft Land Revenue Regulation, to which

LAND REVENUE.

a reference has already been made, a provision has been included that no agricultural right in land shall be alienated by transfer, sale, gift, mortgage or other private contract to any person, who is not entered in a record of rights, as a member of the proprietary body of an estate, or if the transferee is resident in a part of Baluchistán where no such record of rights has been prepared, unless the transferee is a Patháu, Bráhui or Baloch landowner, and unless he is approved by the headmen of the village where the land is situated.

Government land and water.

The details of the land acquired for the site of the town of Nushki are referred to in the section on **Local Funds.** Mention has also been made under "Early Revenue History" of the acquisition by the Kháns of Kalát of certain shares in all the perennial sources of the water supply. When Nushki was leased from Kalát, all the state rights, then in the possession of the Khán, passed from His Highness to the British Government, and the annexed statement shows the details of the shares of land and water which were thus obtained :—

Name of village.	Name of source of water supply.	Total number of shares into which it is divided.	Share of water and land owned by Government.
Nushki	Khaisár stream ...	30 *shabánas.*	1 *tá* or ½ *shabána.*
Badal Khán ..	Káréz Badal Khán ...	15 ,,	2½ *shabánas.*
Nokjo	Káréz Nokjo... ...	13 ,,	6 ,,
Bághak	Káréz Bághak ...	27 ,,	1 ,,
Shakaráb ...	Shakarábán Káréz ...	24 ,,	3 ,,
Bíbi Basowál ...	Káréz Basowál ...	20 ,,	8 ,,
Dád Karím-Wál.	Dád Karímwál Káréz	15½ ,,	2½ ,,
Burjali	Káréz Burjaliwál ...	26 ,,	2½ ,,
Hárúni	Káréz Hárúni ...	23 ,,	3 ,,
Ahmadwál ...	Káréz Ahmadwál ...	27 ,,	1¼ ,,

In addition to the above the Government owns 2½ *shabánas* of the Muhammad Ali Káréz (total 30 *shabánas*), which was constructed after the British occupation. The share of land in each of these *mauzas* is in proportion to the share of water, and the lands are let annually to tenants for cultivation, the seed being supplied by Government. Revenue in kind at the rate of one-tenth of the total produce is first taken, the village servants are then paid and the balance is divided into nine parts, six of which belong to Government as the landlord's share and three to the tenants. According to the custom of the country the Government is entitled to the first turn of water from each *kárez*. LAND REVENUE.

Revenue-free grants.

The revenue-free grants in Chágai and Nushki are of the nature of either religious grants or of grants made for services rendered to the State. These are subject to the usual conditions of loyalty and good behaviour, and, with the exception of small free-holds attached to the shrines of Khwája Ahmad and Sheikh Husain in the Nushki tahsíl which are in perpetuity, have been sanctioned for the lives of the present incumbents and are to be reconsidered on their deaths.

Muáfis in Chágai. Religious grants.

A remission of grazing tax up to a limit of Rs. 25 per annum has been granted to Sakhi Muhammad Sháh, of Washki Nali near Padag, who is the head of a small body of *fakírs* attached to the Rakhshánis of Nushki. Sakhi Muhammad is also the *pír* or spiritual leader of the Méngals, and is one of the most influential men in eastern Chágai. The remission is subject to the condition that Muhamad Sháh resides in the District.

The only other holder of a religious grant in the District is Saiad* Lashkar Sháh of Chágai, who is the representative of the important Balánoshi Saiad family, to which a

*Saiad Lashkar Sháh died in November 1905, leaving five sons, of whom Malik Sháh is the eldest. The question of the Saiad's uccessor is still pending (1905).

LAND REVENUE.

reference has been made in the section on Populatior He has been granted an exemption from revenue fo 3 *shabánas* of the Padagiábán Káréz, and a remission c grazing tax up to a limit of Rs. 12 per annum.

Sanjráni *muáfis.*

The Sanjráni *muáfi* holders are four in number, th most important of whom is (1) Mír Ali Khán the *sarda* of the Sanjránis of Chágai. This chief has been grante a *muáfi* of Rs. 28-11-7 per annum on 5½ *shabánas* of th Lijji Kárez and exemption from grazing tax to th amount of Rs. 15 per annum. He also enjoys certai concessions as regards his private lands at Chágai, Zarál and Dálbandin which have been assessed to revenue a the rate of one-twelfth for the first five years from 1901 at one-tenth for the next five years and at one-eighth fo the following five years, after which revenue at the usua rate of one-sixth is to be recovered ; a condition being that should Ali Khán's death occur before the expiry of fifteen years the full rate of one-sixth will be levied from his successor. (II) Dost Muhammad Khán, Haibat Khán and Shér Khán, sons of Sháh Nazar Khán, Sanjráni, who are closely related to the chief's family, enjoy a remission of grazing tax to the amount of Rs. 5 on their private flocks. Revenue on their lands was recovered at the rate of one-twelfth in 1901-2, at one-tenth in 1902-3, at one-eighth in 1903-4, and after this period at the usual rate of one-sixth. (III) Ali Khán, Amír Khán and Yákúb Khán Sanjráni, sons of Mustafá Khán, have been granted remission of grazing tax to the value of Rs. 10 per annum on their personal flocks; while the revenue on their private lands has been levied at the same rates as detailed above in the case of Dost Muhammad. (IV) Dost Mu-hammad, Baréch, the hereditary *náib* of the Sanjránis, to whom a reference has already been made in the section on 'Early Revenue History,' has been exempted from grazing tax to the value of Rs. 50 per annum, and hi

private lands are subject to the same conditions of taxation as those of Mír Ali Khán. LAND REVENUE.

Muáfis in Nushki.

The greater number of the free grants in the Nushki tahsíl were originally made at various times by the Kháns of Kalát. Many of these have been continued by the British Government, and a detailed list showing the existing *muáfis* (1905) is given in table XIII, Vol. B. This list is based on the orders passed in 1901 and 1902, and has been brought up to date (1905). The total approximate value of these *muáfis* is Rs. 417-5-0 per annum as shown below :—

Sáhibzáda *muáfis*	... ... Rs.	21	12	0
Saiad "	... ... "	64	5	0
Kambráni "	... ... "	86	15	0
Méngal "	... ... "	148	7	0
Hárúni "	... ... "	95	14	0
		417	5	0

These figures do not include the grants of unirrigated lands assigned in perpetuity to the shrines of Khwája Ahmad and Sheikh Husain.

Religious grants.

Both the Sáhibzádas, who are of Saiad descent, and the Saiads of Nushki, have held their lands revenue-free for many generations in accordance with the custom observed by the Muhammadan Governments. These privileges have been respected by the British Government and have been continued to the present day (1905).

Tribal *muáfis*.

In addition to these religious grants the other *muáfis* are those which have been given to the Kambránis, Méngals and Hárúnis.

Kambránis or Kambráris.

The Kambránis belong to the same tribe as the ruling family of Kalát and paid no tribute during the rule of the Kháns. They possess a *sanad* granted them by Mír Khudádád Khán, the ex-Khán of Kalát, in which it is stated that their holdings had been exempt from revenue

LAND REVENUE.

since the time of Mír Nasír Khán the Great. It would, however, appear that in those days they were bound to furnish a quota of troops at their own expense for the service of Government. The Kambránis of Nushki now (1905) enjoy a *muáfi* of 3 *shabánas* of the Dád Karím and 5 *shabánas* of the Hárúni Káréz, the estimated annual value of which is Rs. 86-15-0.

Méngals.

The Méngal chief and his family have held their lands at Nushki revenue-free, since the time of Mír Nasír Khán the Great. These grants were given as rewards for valuable assistance rendered to the Kháns in the protection of the border, and as compensation for the shares which the Méngals had possessed in the Dúdrán channel at Kalát. The *muáfis* are situated in the Nushki stream and the Bághak Káréz and amount to 7 *shabánas*, 4 *pás* and 1 *dígar*.

Hárúnis.

The *muáfis* held by the Hárúnis are said to date from the time of one of their ancestors named Bádín, who fought for Mír Nasír Khán the Great at the battle of Sibi against the Bárúzais, and was killed together with his seven sons. The *muáfi* was granted in recognition of the bravery displayed by the Hárúnis on this occasion. The *muáfis* now (1905) enjoyed amount to 7 *shabánas* and 4 *pás*.

MISCELLANEOUS REVENUE. Excise revenue.

The excise contracts of the District are sold annually by the Assistant Political Agent, Chágai, through the Political Agent, Quetta-Pishín, subject to the sanction of the Revenue Commissioner, and include opium, poppy heads, *gánja*, *charas*, *bhang*, country liquor and rum.

Opium.

The import, possession and transport of opium and poppy heads is governed by rules issued by the Local Government in 1898 under the Opium Act. There is no cultivation of poppy in the District and the supply required for local consumption is imported from the Punjab, under pass, by licensed vendors, who make their

MISCELLANEOUS REVENUE.

own arrangements for procuring it. Such imports pay no duty. Smoking preparations may not be bought or sold, and must be made up by the smoker from opium in his lawful possession, and then only to the extent of 1 tola at a time. The ordinary limits of private possession are 3 tolas of opium and its preparations (other than smoking preparations) and 1 seer of poppy heads. The revenue realized in 1901-2 was Rs. 60, but in 1904-5, when the Nushki Railway was under construction, it rose to Rs. 1,500.

Intoxicating Drugs.

Besides opium the intoxicating or hemp drugs, which are controlled by regulations are *gánja*, *charas* and *bhang*. The contracts for the wholesale and retail vend of these drugs were separated in 1904-5. The ordinary source of supply of *gánja* and *bhang* is Sind, and that of *charas* the Punjab, but *bhang* and *charas* are also imported to a small extent from Kalát and Afghánistán. In February, 1902, revised rules were issued, under which the farmers are permitted to import the drugs from other British Provinces in bond, and these, when so imported, are stored in a bonded warehouse established at Sibi, where small fees are levied and issues to licensed vendors are taxed. The ordinary rates of duty on drugs imported from British territory are Rs. 4 per seer on *gánja*, Rs. 80 per maund on *charas*, and Rs. 4 per maund on *bhang*; but imports from foreign territory are taxed at double rates.* The ordinary limit of private possession is 1 seer in the case of *bhang*, and 5 tolas in the case of *gánja* and *charas*. The contract in 1901-2 was sold for Rs. 100 and in 1904-5 for Rs. 3,000, the temporary increase being due to the large influx of workmen employed in the railway construction works.

Country spirits and rum.

The manufacture and vend of country spirits are combined under a monopoly system. More than 1 seer

*The question of the revision of these rates is under consideration (1906).

MISCELLANEOUS REVENUE.

of country liquor cannot be sold to any one person at a time, except with the permission, in writing, of an Excise officer authorised on this behalf by the Assistant Political Agent. No minimum price is imposed nor has the liquor to be of any special strength. The revenue from this source between 1899-1900 and 1901-2 averaged Rs. 367 per annum, while in 1904-5 it rose to Rs. 2,200. There is no distillery in the District, and the contractor makes his own arrangements for his supply from the neighbouring districts.

Foreign Liquors.

There is only one shop in the District with a retail license for foreign liquors, which term includes all liquors other than rum manufactured in India. This license was granted in 1904 and a fee of Rs. 50 is charged per annum. The most important conditions of retail licenses are, that no quantity of liquor greater than two imperial gallons, or twelve quart bottles, or less than one bottle, can be sold to any one person at one time, and that no spirituous liquor, except spirits of wine and methylated spirits, shall be sold for less than Rs. 1-8-0 per bottle.

Methylated spirits.

The import, possession and sale of methylated spirits is controlled by rules issued by the Revenue Commissioner in December, 1900, and no fees are charged for licenses. In 1904-5 one license was issued.

Consumption and consumers, and revenue.

The consumption of opium, intoxicating drugs and liquors is chiefly confined to the Indian population in the District, the local tribesmen being abstemious, by habit, and having neither the means nor the inclination to consume excisable articles. During the construction of the railway line the number of shops rose from one to eight, and there was a proportionate increase in the revenue; but with the completion of the works the alien population has vanished and the revenue has assumed its normal condition. Table XIV Vol. B, gives the figures of the excise revenue of the District from 1899-1900 to 1904-5

and the consumption of excisable articles. In 1904-5 the total receipts amounted to Rs. 6,700 and the consumption per 1,000 of the population was: opium 1 seer 3 chittacks; *charas* 6 seers 10 chittacks; and *bhang* 3 seers 15 chittacks. MISCELLANEOUS REVENUE.

Stamps. The Indian Stamps and Court Fees Acts, and the rules made under them are taken as guide. Licenses for the sale of Judicial and non-judicial stamps are issued by the Assistant Political Agent to petition-writers and others, who obtain their supply from the sub-treasury at Nushki and are paid commission at rates varying from 12½ annas per cent. to 6¼ per cent. on different kinds of stamps. In March 1905, there were two license holders in the District. The average annual receipts between 1901-2 and 1903-4 were Rs. 261. In 1904-5 the receipts from judicial stamps amounted to Rs. 2,311 and from non-judicial stamps Rs. 188, the increase being due to the presence of a large number of workmen on the railway.

Income Tax. The income-tax Act (II of 1886) has not yet been applied to Baluchistán (1905), but the tax is levied on the salaries of Government servants, by deduction from their pay bills. The receipts between 1897-8 and 1904-5 averaged Rs. 410 per annum.

LOCAL FUNDS. The only Local Fund in the District is the Nushki Town Fund which was formed in 1899, and declared to be an excluded Local Fund on the 1st of April, 1904. It is governed by rules issued by the Government of India in February 1900, as modified in April 1902; the Assistant Political Agent of the District is the administrator and controlling officer, and the Revenue Commissioner has the powers of a Local Government. The tahsíldár at Nushki is responsible for the collection of revenue, and incurs expenditure under the sanction of the Assistant Political Agent.

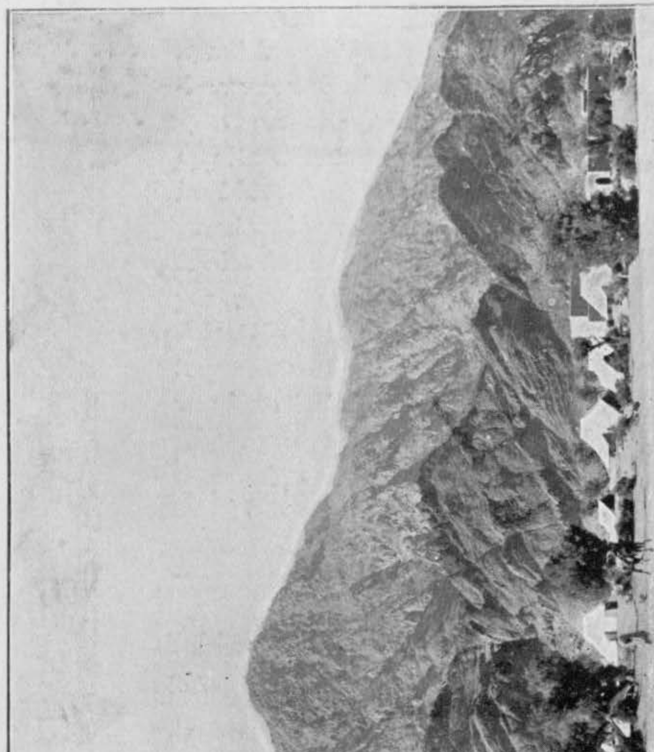
LOCAL FUNDS.

The principal sources of revenue are (a) ground rent recovered from dwelling houses and shops at the rate of Re. 1 per mensem per house, (b) conservancy tax imposed at the rate of 8 annas a month on each shop or house and (c) garden and miscellaneous receipts. No octroi is levied in the bazar at Nushki, but during 1903-4 and 1904-5 when the railway was under construction, a temporary octroi was imposed on the bazars along the line in order to meet the additional expenditure required for their protection and sanitation. The amount thus realized was credited to the Nushki Bazar Fund, from which the expenditure was also met.

The revenue of the fund is devoted to objects of public utility at Nushki, and the chief items of expenditure are those on establishments for tax collecting, conservancy, watch and ward and lighting, the up-keep of roads and gardens and contributions to the cost of the maintenance of indoor patients in the Nushki dispensary. On the 1st of April 1904, the new fund opened with a balance of Rs. 2,121 derived from the old Bazar fund, to which was added a sum of Rs. 3,534 realized from the octroi levied in the temporary railway bazars. The net receipts during 1904-5 amounted to Rs. 3,495, the increase being due to the establishment of the Conservancy Cess, already alluded to, and the ephemeral prosperity of the town during the construction works. The closing balance to the credit of the fund at the end of the financial year 1904-5 amounted to Rs. 4,007. The details of the income and expenditure under the various heads are given in table XV, Vol. B.

PUBLIC WORKS. System of working.

Owing to the remoteness of the District from Quetta, the head quarters of the Military Works Service in Baluchistán, all public works up to the present time (1905) have been carried out under the orders of the Assistant



PUBLIC WORKS.

Political Agent, who is assisted by an overseer paid from the Provincial Revenues.

A special Irrigation Engineer, with his head quarters at Quetta, advises the District Officer in all irrigation matters.

Works.

Reference will be found in the section on **Means of Communication** to the railway and principal roads, including the Quetta-Nushki-Seistán Trade Route. The other more important works carried out since the establishment of the District are as follows:—

Works.	Year when completed.
Thána at Nushki	1898-9.
Serái at Nushki	1898-9.
Dispensary at Nushki	1899-1900.
Sub-treasury at Nushki	1899-1900.
Levy post and Chhapar Khána at Kishingi ...	1900-01.
Levy post and Musáfir Khána at Murád Khán Kila...	1900-01.
Political Rest House at Nushki	1900-01.
Tahsíl at Nushki	1900-01.
Caravan Serái at Kishingi	1900-2.
Tahsíl at Dálbandin	1902-3.
Caravan Serái at Mal	1903-4.
Quarters for Tahsíl clerks at Nushki	1903-4.

ARMY.

A detachment from a Native Infantry regiment stationed at Quetta, consisting of 1 Native officer, 4 non-commissioned officers, and 29 men is posted at Nushki as a guard over the Sub-treasury, and is relieved quarterly. When on tour the Assistant Political Agent is also provided with

ARMY. a military escort consisting generally of a Native officer, 4 non-commissioned officers and 29 rifles.

LEVIES. When the caravan route connecting Seistán with Quetta was first opened out by Captain Webb Ware, C.I.E., in 1896, the Government of India sanctioned a special grant of Rs. 28,200 per annum for a period of three years for its development. Out of this amount a sum Rs. 1,115 per mensem or Rs. 13,380 per annum was allotted for the entertainment of levies to protect the route. In 1897 the levy allotment was raised to Rs. 1,600 per mensem and was distributed as follows :—

Name of post.	Jamadárs.	Daffadárs.	Sowars.	Daffadárs of Khásadárs.	Khásadárs.	Munshis.	Total cost Rs.
Robát ...	1	1	5	1	3	1	255
Saindak ...	...	1	...	...	4	...	75
Amír Cháh. ...	1	...	5	1	8	1	280
Méru.i ...	1	...	6	...	5	1	245
Dálbandin ...	1	...	5	1	5	1	240
Personal escort of Political Assistant : 1 Jamadár and 5 sowars.							155
Allowance to Muhammad Ali Khán Sanjráni and his 10 sowars ...							350
Total Rs. ...							1,600

During the same year an additional establishment costing Rs. 430 per mensem was sanctioned for postal service, and these levies were stationed at Saindak, Amír Cháh, Dálbandin, Mérui, Padag, Mal and Nushki.

In May 1898, the postal *chauki* at Mal was abolished and four new posts at Saiad Langar, Manzil Chauki, Drána Koh and Cháh Sandán were added, the cost of the levics being thereby raised to Rs. 2,245 per mensem. In June 1899 a further sum of Rs. 135 per mensem was

sanctioned for the purpose of strengthening the Nushki post and the Assistant Political Agent's personal escort, the total cost of the levies being increased to Rs. 2,380 per mensem. In 1900 important revisions were made in connection with the Chágai levies involving an additional cost of Rs. 1,036 per mensem, the chief features of the change being the appointment of paid *baniás* at Robát Kila, Saindak, Mashki Cháh, Mérui, Dálbandin, Padag, Kishingi and Kardgáp, the abolition of the posts at Drána Koh, Saiad Langar and Manzil, and the addition of eleven new posts as detailed in the margin. The Nushki and Dálbandin levies were also increased, and a personal escort was sanctioned for the Assistant District Superintendent of Police. In 1901 an additional Levy establishment, consisting of 4 sowars and 1 khásadár, was sanctioned for the Chágai sub-tahsíl at a monthly cost of Rs. 90.

LEVIES.

Cháh Muhammad Raza.
Kirtaka.
Mukak Káréz.
Tratoh.
Mashki Cháh.
Sotag.
Chakul.
Karodak.
Kuchaki Cháh.
Chandan Khán Band.
Kishingi.

In 1903, an establishment costing Rs. 88 per mensem was engaged for the Caravan Serái at Quetta, the strength of the levies at Mírjáwa and Mashki Cháh was increased, and a postal *chauki* was established at Nok Kundi at a cost of Rs. 400 per mensem. The postal and district levies were now separated, and the three sowars forming the Assistant Political Agent's escort, costing Rs. 90 a month, were transferred from the police to the levies. In 1904 the strength and pay of the sowars of the escorts of the Assistant Political Agent and the Assistant District Superintendent of Police were revised, and the Kardgáp Chauki (Murád Khán) was transferred to the Kalát Agency. At the end of 1904, the total cost of the levies amounted to

LEVIES. Rs. 2,706* a month or Rs. 32,472 a year. A detailed distribution of levies, in June 1905, is given in table XVI Vol. B. This table includes the Postal levies, but excludes the first class levies mentioned below.

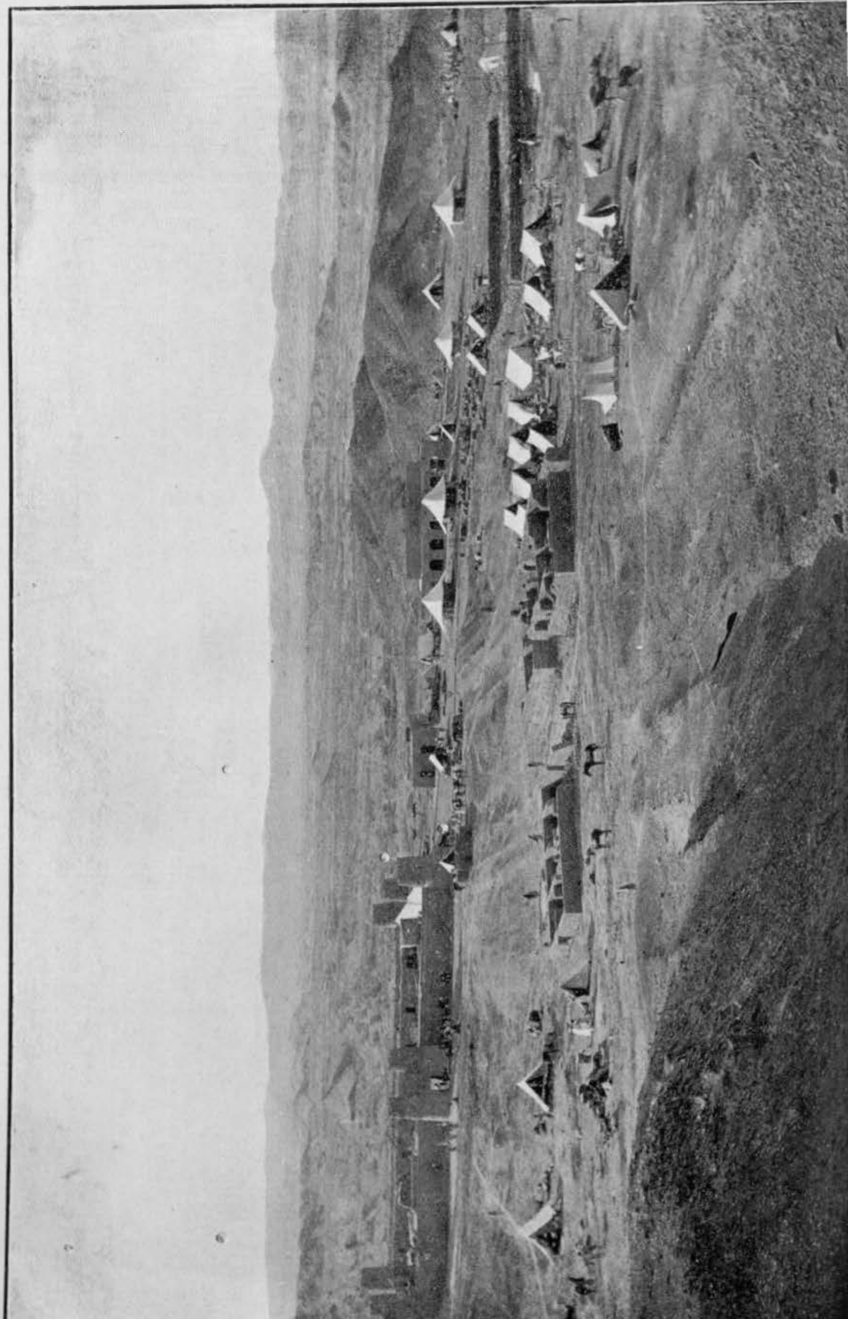
In 1905 further additions were made to the levies at a monthly cost of Rs. 2,789 and comprised (in addition to office and menial establishments, contingencies, etc.), 1 Risáldár on Rs. 60, 1 Jemadár on Rs. 50, 2 Daffadárs on Rs. 35 each and 2 on Rs. 30 each, 89 sowars (partly horse and partly camel) on Rs. 27 each and 1 Salutri on Rs. 35. The total cost of the levies of the District was thus raised to Rs. 5,495* or Rs. 65,940 per annum. These new levies are designated as "first class levies" and are posted at Nushki, Dálbandin and Robát (1905). They are armed with Martini Henry Cavalry Carbines; each mounted man brings his own horse or camel, and pays for his uniform and saddlery, which is of the Bráhui pattern. The uniform consists of a *kháki* coat, *khákí pagri* and *pattis* and white trousers of the ordinary Bráhui pattern. They are enlisted in accordance with the usual tribal system.

Duties of levies. The ordinary levies are employed in carrying the mails, garrisoning the posts on the Nushki-Seistán Trade Route, and on all duties connected with the revenue and police administration of the District. In addition to the *thánas* on the Nushki Trade Route, they hold the posts of Chandan Khán Band, Amír Cháh, Mírjáwa and Barábcháh.

The chief duties of the "first class levies" are to provide escorts and thus obviate the necessity of employing military detachments. They also strengthen the chain of posts along the Trade Route, and can be utilized in cases of emergency to reinforce any particular garrison.

Important levy services. Mír Ali Khán, the chief of the Sanjránis, is granted a montnly allowance of Rs. 350 from the Levy grant, out of

*NOTE.—Excluding Rs. 1,398 the monthly cost of the Postal Levies.



which he pays Rs. 50 to Náib Dost Muhammad, Afghán Baréch, and provides for the pay of the post at Yádgár Cháh, the fifth stage on the Trade Route from Nushki. LEVIES.

At the present time (1905) the major portion of the levies at Saindak, Nushki and Kila Robát are furnished by the Rustamzais, those at Mukak Káréz and Tuzgi by Idu Pahlwán's men, at Mashki Cháh and Dálbandin by the Rakhshánis, and at Kila Sufféd partly by Rékis and partly by Rustamzais. The predominance of the Rustamzais, who are a Bráhui tribe belonging to Kalát, is due to the fact that when the Trade Route was first established, it was found impossible to obtain suitable local men to fill the posts. At this time of difficulty the late Sardár Allayár Khán, the head of the Rustamzais, offered the services of his tribesmen, who were accordingly given the more advanced and dangerous posts, where they have done excellent service under trying conditions.

Caravan *Serái.*

In 1902, a *serái* was built at Quetta in order to afford shelter to caravans coming from Seistán and Persia, and is now (1905) in charge of Khán Bahádur Muhammad Taki Khán, an Afghán refugee, who receives Rs. 50 as pay and Rs. 25 per mensem as sumptuary allowance. The Khán Bahádur also acts as the local agent at Quetta on behalf of merchants using the Trade Route.

Appointment of Assistant District Superintendent of Police, Chágai.

When Nushki was taken over from His Highness the Khán of Kalát, it was considered that the time of the District Officer should, in future, be occupied by the administration of the District, and for the proper development and control of the Trade Route, an extra European officer was appointed in October, 1899, and was designated as Assistant District Superintendent of Police, Chágai. The pay of the appointment was originally Rs. 250, which has since been raised to Rs. 400 a month on the establishment of the first class levies. In 1903 the Assistant District Superintendent was relieved of the charge of the Police.

LEVIES.

Levies on railway.

Three levy sowars and four footmen are employed at the railway stations of Galangúr, Kishingi and Nushki.

Transborder posts.

The Amír of Afghánistán holds the posts given in the following statement along the border of the District (1905). These posts are held by footmen, who are locally known as *khásadárs*, and whose principal duties seem to be to prevent the smuggling of grain and merchandise into British territory, and the posts which they occupy are located, as far as possible, on the tracks followed by caravans.

Afghán post with strength—

	Panjáh Báshi.	Dáh Báshi.	Khásadárs.
Siáh Sang	1	2	20
Bíbi Papuri		1	10
Partos Náwar...		2	20
Shér Sháh Náwar		2	20

On the Khárán border the Naushérwáni chief has his levies at the following posts :—

Name of post.	Estimated strength of levies.
Pátkin	1 naik and 7 sepoys.
Gédén	1 havildár and 4 sepoys.
Zard	3 sepoys.

Their chief object is to collect *sung* or transit dues.

POLICE.

When the tahsíl was first established at Nushki, a small local police force, consisting of 1 Deputy Inspector, 1 sergeant, 9 constables and 3 sowars, was also entertained, and placed under the orders of the Assistant District Superintendent of Police. In addition to their ordinary duties in connection with the town of Nushki, the police furnished a guard over the Sub-treasury. In October 1902, they were relieved of this duty by a military detachment from Quetta. In November, 1903, the force was placed, as regards all questions of interior economy under the District Superintendent of Police, Quetta-Pishín, and the three sowars were transferred to the local levies.

POLICE. Railway police.

When the railway was under construction, a small body of temporary police were engaged for the protection of the bazars along the line. These have now been disbanded, and in November, 1905, when the railway was opened for traffic, 2 sergeants and 12 constables were added to the regular police and stationed at Galangúr, Kishingi and Nushki. These men form part of the Quetta-Pishín force, and work under the direct orders of the District Superintendent of the Quetta Police.

Cognisable crime.

Generally speaking the people of the District are remarkably well behaved, and few serious crimes have occurred among the settled inhabitants. Writing on this subject in 1904 Major Benn, C.I.E., the Assistant Political Agent says :—" The District may be said to be practically free from crime. The number of murder cases, since the District was taken over in 1897 by the British Government, amounts only to 15. Four of these cases have occurred since the construction of the Quetta-Nushki Railway was commenced in the District, and have been attributed to Patháns working on the railway, though, owing to the large number of men employed on the railway works and the paucity of local police and levies the murderers were not traced. No criminal classes exist among the indigenous population. After murder, the most serious offences committed have been a few raids on the *káfilas* on the Seistán route.

" The only other crime, which can be said to be of at all common occurrence in the District, is that of cattle lifting. This offence now-a-days is considerably less common than when the District was first taken over. The thieves have in practically all cases been transborder Afgháns from Garmsél or Shoráwak. No cases of theft of arms or ammunition have so far occurred in the District."

POLICE. These remarks refer principally to the indigenous population; but, on the other hand, owing to its exposed situation and its nearness to the Afghán and Persian borders, which are inhabited by a people predatory by instinct and custom, and to the fact that a large amount of trade, often of considerable value, is carried along the Trade Route, the history of the District shows that it has suffered from its share of external raids. These were more prevalant in the earlier years, and it is recorded that during 1898-9 no less than twelve raids were committed by the Baréch Afgháns from the Shoráwak border.

1899-1900. In May 1899, a body of trans-frontier Méngals raided across the Dák lands immediately east of Chágai, and captured sixty camels. This was met by a counter raid by the Méngals of Nushki, in which 120 camels were seized. This brought the trans-frontier tribes to terms, and the case was settled by the punishment of the original offenders and the restoration of the animals.

In September of the same year a band of some fifty raiders made an unsuccessful attack on a Seistán caravan, which was passing through Cháh Sandán on its return journey to Persia. The Seistánis, reinforced by the levies from Mérui, beat off the attacking party and captured two of their assailants.

In March 1900, a band of raiders, the majority of whom were notorious robbers, carried off a flock of sheep from near Nushki. They were pursued by a party of Rustamzai levies who killed three of the raiders, and captured their leader Ali Ján a noted dacoit.

1900-01. In June 1900, a gang of raiders, who were driving off a herd of camels from Mal, were surprised by a party of levies, who recovered the animals and killed two of the robbers.

1901-02. In the following year a party of Hazára pilgrims from Kurram, who were on their way to Meshed to visit the

shrine of Imám Raza, were attacked near Cháh Sandán by a small gang of frontier outlaws, who looted the caravans and killed one of the pilgrims. The raiders were pursued, but effected their escape across the border. The leader of the gang, one Sáléh Muhammad, was subsequently captured, and, after trial by *jirga*, was sentenced to a long term of imprisonment. POLICE.

Early in 1903, a smart piece of work was done by the thánadár of Dálbandin and his levies, who pursued and dispersed a very superior force of raiders who had looted a caravan near Karodak. The property was recovered, and four of the robbers were killed during the fighting. 1902-03.

In 1904, a caravan of Afghán traders, returning from Seistán, was attacked and looted near Ziárat Saiad Mahmúd which is close to the Afghán border. The robbers escaped before any pursuit could be organised. 1904-05.

In October 1905 a gang of eight transborder Patháns and Baréchis from Shoráwak made a night attack on the bazar at Dornock, a temporary railway settlement about midway between Nushki and Kishingi stations. They wounded a bania and carried off practically all, the contents of his shop. On the news reaching Nushki a party of the new Chágai First Class Levies was sent in pursuit under Jemadár Adam Khán, Sarpara. 1905-06.

The party came up with the thieves a few miles within the Afghán border when an encounter ensued. The levies accounted for six of the eight thieves, of whom two were killed, two wounded and two taken prisoners. They also recovered all the looted property. The two prisoners were subsequently tried judicially by the Assistant Political Agent for Chágai and each sentenced to five years' rigorous imprisonment.

The District possesses two cattle pounds which are located at Nushki and Dálbandin. The Nushki cattle pound is in charge of the Police and that at Dálbandin in Cattle pounds.

POLICE. charge of the náib tahsíldár. Fines are levied at rates varying from 1 anna to 8 annas and the receipts in Nushki are credited to the Town Fund, while those at Dálbandin are credited to the Provincial Revenues.

JAILS. The lock-up at Nushki has accommodation for twenty male and four female prisoners, and is only intended for local convicts, whose term of imprisonment does not exceed six months, and non-indigenous convicts, whose term of imprisonment does not exceed one month. Other convicts are sent to the Quetta jail. Prisoners whose term of imprisonment exceeds six months are, on their arrival at Quetta, transferred to the Shikárpur jail.

The prisoners at Nushki are engaged in grinding corn, on work in the local garden, and on other miscellaneous work connected with the town of Nushki. Undertrial prisoners only are detained in the lock-up at Dálbandin, the convicts being sent to Nushki. The total number of prisoners admitted into the Nushki lock-up during 1904-5 was 87; all males, and the cost of maintenance amounted to Rs. 203-7-2.

EDUCATION. Early methods. Before the British occupation no system of instruction existed in the District. The Korán was taught by rote to boys in the village *masjid* schools by *mullás*, who charged no tuition fees, but were maintained by *zakát* or charity subscribed by the villagers, generally one-tenth of the produce of the lands and one-fortieth of the flocks, and also by alms given on various occasions and by marriage fees. This system is still maintained in many places, and in 1903 there were seven such institutions in the Nushki tahsíl at which some sixty boys were under instruction.

Primary school. The first primary school in the District was established at Nushki in June 1903, and is well attended by the sons of the neighbouring tribesmen and local traders. The scheme of studies is the same as that observed in the Punjab. No fees are levied and the school is maintained

from Provincial Revenues, the cost in 1904-5 being Rs. 444 for the year. All technical details connected with the institution are under the charge of the Personal Assistant to the Inspector General of Education.

EDUCATION.

The details of the expenditure and average attendance are given in table XVII, Vol. B.

MEDICAL. Nushki dispensary.

The Civil dispensary at Nushki, which is the only one of its kind in the District, was opened in February 1900. During the five years ending with 1904, the daily attendance of outdoor patients averaged about 33, and the average annual expenditure, which is contributed by the Provincial Revenues, amounted to Rs. 1,392. The average number of surgical operations performed each year during the same period amounted* to 109. The dispensary also has accommodotion for four male and four female in-patients, the expenditure in connection with whom is met from the Nushki Town Fund. The institution is popular and is made use of not only by the inhabitants of the Nushki tahsíl but also by the transfrontier tribesmen from Shoráwak, Garmsél and Régistán.

The question of opening a dispensary at Saindak is now under consideration (1905).

Medical relief to railway patients.

During the winter of 1903-4 an Assistant Surgeon was posted at Sultán Ziárat to afford medical relief to the coolies employed on the railway construction works between Kishingi and Nushki, and the Hospital Assistant at Nushki was, at the same time, granted an allowance of Rs. 10, per mensem, for attending on railway patients. These arrangements are still in force (1905).

Principal diseases and their causes.

The principal diseases are malarial and other fevers, dysentery, scurvy, eye diseases and diseases of the skin, while, in winter, pneumonia, catarrh and bronchitis are prevalent. Malaria is said to be due to sand flies and mosquitoes, the latter of which breed in large numbers

*For further details, see table XVIII, Vol. B.

MEDICAL. in the various *hámúns* and *náwars.* Dysentery may be accounted for by the bad water, the poor quality of food and by the great variations in the temperature; it is most prevalent during the summer and autumn, when a large proportion of the people subsist to a great extent on cucurbitaceous plants. According to local opinion, much of the fever in the western part of the District is caused by the *maghér* (*Rumex vesicarius*) an indigenous plant, the leaves and seed of which are often used as food by the poorer classes.

Affections of the lungs in the cold weather are due to the frequent changes in the temperature and insufficient clothing. Cases of scurvy are probably due to the want of fresh fruit and vegetables which cannot be procured in most parts of the District. The dust and sand storms which prevail in summer, added to the dirty habits of the people, produce eye and skin diseases.

In connection with the above a comparison of the different kinds of cases treated in the Nushki dispensary during the quinquennial period of 1900 to 1904 may be of some interest. During these years the average annual number of patients amounted to 5,468; ofwhich 1,327 were cases of malarial fever, 1,196 of dysentery and diarrhœa; 517 of eye diseases; 515 of skin diseases, and ulcers; 305 of diseases of the respiratory organs; 398 local injuries; 137 cases of scurvy and the remaining 1,073 miscellaneous diseases. In the winter of 1900-1 there was an outbreak of a virulent type of pneumonia, which caused 60 deaths in the Nushki bazar and 40 deaths in the neighbouring villages.

Epidemics. The usual epidemic diseases are small-pox (*putau*) and cholera (*dáki*). Typhus is not common, and, since the British occupation, there has only been one epidemic of measles, which appeared in a mild form in 1904-5 in the neighbourhood of Nushki.

MEDICAL. Small-pox.

Small-pox appears to be endemic, and there are periodical and recurring outbreaks of the disease. Early in 1898-9 it appeared in a virulent form in the Chágai sub-tahsíl, when some 200 persons of all ages are reported to have been attacked.

Cholera.

The earliest visitation of cholera in memory of man is said to have occurred some forty years ago in the Méngal villages near Nushki. The disease is also reported to have appeared at Chágai about thirty-two years ago. The first epidemic since the British occupation occurred in June 1903, when Nushki was visited by a virulent type of cholera which more than decimated the Nushki bazar and caused great loss of life in the surrounding villages. The disease was imported from Quetta. Fortunately its duration was not long and it did not spread beyond the Nushki tahsíl. Mr. T. O. Hughes, the Assistant District Superintendent of Police, was in charge of the protective measures and his services were recognised by the grant of the Kaisar-i-Hind medal.

Typhus.

A severe outbreak of typhus, the usual concomitant of famine, appeared in 1902 among the flockowners in the Chágai hills and carried off upward' of 100 persons. There is no record of any other outbreak.

Vaccination and inoculation.

No vaccinator has yet visited the District, but in 1903 and 1904 the Hospital Assistant at Nushki vaccinated about 600 persons chiefly among the alien population. The people of the country still cling tenaciously to the primitive system of inoculation (locally known as *tuka*) which is practised by Saiads and other persons of religious sanctity, whose services are requisitioned when outbreaks of small-pox occur, and who are paid small fees in cash or kind varying according to the position of the patient. The method usually adopted is for a small incision to be made with a razor on the wrist of the right hand, in which the powdered small-pox pustules (which in Chágai are

MEDICAL. ordinarily obtained from a Saiad patient) are placed mixed with the ashes of cowdung or sal ammoniac. A cloth bandage is then tied over the wound. The patient is fed on heating food, such as dates, molasses and meat in order to accelerate the appearance of the eruptions, which usually break out accompanied by fever within three or four days of the operation. If the operation does not prove successful, the patient is left to be inoculated at the next visit of the epidemic. When suffering from the eruption, a patient may not be visited by women or other persons who for any reason may be considered 'unclean,' according to the custom of the country. The inoculated patients suffer from a mild attack of small-pox and usually recover in a few days. The Hindus of the District, like their confreres in India, regard the disease as a divine visitation and have conscientious objections to both vaccination and inoculation.

Indigenous remedies.

The people in the neighbourhood of Nushki have begun to appreciate the advantages of regular medical treatment, but in the remoter parts the tribesmen still resort to their own simple remedies. The names of indigenous drugs used by the people are given in appendix III. In severe cases of fever and pneumonia the common remedy is to wrap the patient in the skin of a freshly slaughtered sheep or goat; in case of pneumonia the skin of a male sheep should be used. If this treatment gives no relief, branding with hot iron is resorted to. Branding is in fact the common remedy for nearly all diseases, and it is rare to meet an adult male who has not several scars on different parts of his body. In the eastern part of the District, in cases of pneumonia a solution of *ajwáin* (*Carum copticum*) is administered to the patient, and the affected part is also fomented with the same drug. After the seventh day, a decoction of *unáb* (jujubes), *gul binafsha* (violet), *spistán* (*Cordia myxa*), figs and *bihídána* (quince

seed) is prescribed. In cases of typhus fever, soup made from the meat of a piebald male sheep is considered an efficacious remedy. There is no particular treatment for cholera, but during the epidemic, prayers are offered by the Saiads and other holy men and alms are distributed. When cholera broke out in the Méngal villages some forty years ago, the Saiads made the people pass under the Korán and eat a small piece of earth over which special prayers had been read. For diseases of the digestive system two kinds of purgatives are commonly used; (1) an infusion prepared from senna, roses and aniseed mixed with *sonchal* (salt), and (2) a draught prepared from the powdered myrobalan fruit mixed with ordinary salt. For diseases of the eye the people use a medicine composed of the seed of the *chásku* (*Cassia Abus*), crystalized sugar, opium and *daryá kaf* (*Argyreia speciosa*). MEDICAL.

The pice packet system of selling quinine through the agency of the post office, has been introduced into the District. In 1901-2, 426 packets were sold, the largest sale being at Nushki. In 1904-5, the sale rose to 491 packets, of which 206 were sold at Saindak and 225 at Nushki. **Working of the pice packet system of sale of quinine.**

With the exception of the town of Nushki and the small settlement at Dálbandin, where sweepers are engaged, no arrangements, official or private, exist for the sanitation of the villages. The litter and filth are allowed to remain in the lanes and houses until removed for manuring the fields. The migratory habits of the people however, assist in sanitation to a great extent. A large proportion of the inhabitants, and especially of those in the western part of the District, are nomads pure and simple, whilst the villages which are few in number, are also deserted periodically for two or three months in the year. *Gidáns* or blanket tents are used by the nomads in winter, and *kudis* or huts made of wattle, in the summer. **Village sanitation and water supply.**

MEDICAL. The supply of drinking water is drawn from springs, streams, wells or *kárézes* and in the dry sandy desert tracts exclusively from wells or from *náwars,* which are pools in which rain or flood water has been collected.

Except at certain places in the Chágai hills, the quality of the water generally throughout the District is bad, being salt and brackish and highly impregnated with mineral solutions, which become concentrated during the hot weather owing to the rapid evaporation of the water. Out of twelve places where the water was examined, that of nine was pronounced to be unfit for human consumption or of doubtful quality, while that of three places was considered as fair.

SURVEYS. The Survey Department of the Government of India has prepared and published maps of the whole District on the quarter-inch and one-eighth-inch scales. Maps have also been published on the half-inch scale of a part of the eastern portion of the Nushki tahsíl.

CHAPTER IV.

MINIATURE GAZETTEERS.

MINIATURE GAZETTEERS. Nushki Tahsíl General description.

The Nushki tahsil which has an area of 2,202 square miles lies in the eastern portion of the Chágai District between 29° 2′ and 29° 54′ N., and 65° 13′ and 66° 25′ E. at an elevation of about 3,000′. It is bounded on the north by Shoráwak, on the east by the Sarlat range, on the south by the Ráskoh hills, and on the west by the Chágai sub-tahsíl. The western boundary line runs from Koh-i-Sheikh Husain in a northerly direction through Lála and Ziárat Saiad Mahmúd to the Baloch Afghán boundary about half way between pillars Nos. CLVI and CLVII.

The eastern portion of the tahsíl lies within the Sarlat Range, the hills of which vary from 4,370′ to 6,273′ in height. Enclosed in these hills is the Kishingi plain which contains a levy post and a railway station. There are several hill torrents in this part, the principal being the Khaisár which rises in the hills about 8 miles to the north of Kishingi and flows through the Nushki gorge in a south-westerly direction into the Nushki plain. The main Sarlat Range terminates at the debouchure of the Khaisár stream, but a subsidiary line of hills, known as the Garr Range, continues to run in a southerly direction and forms the eastern boundary, separating the Nushki plain from the Sarawán country of the Kalát State.

The greater portion of the tahsíl consists of a large alluvial plain, interspersed with tracts of sand and

MINIATURE GAZETTEERS.

intersected from east to west by a low ridge of barren, stony hills called Bilau. The Dák, which is doubtless a corruption of the word *dág* and corresponds to the term *pat,* is the name applied particularly to that clear open part of the plain which commences on the south border of Shoráwak, and stretches to the south-west for a distance of about 100 miles along the course of the Lora, until it is terminated by the Lora Hámún. The average width of the plain is about 15 miles. It is bounded on the west by the sand hills of the Régistán, and on the east by the sandy tract or "half desert" (*ním chol*) which lies between Shoráwak and the small plain of Nushki proper. The sand hills of this tract are thickly covered with bushes and vegetation, and afford good grazing for numerous flocks of sheep and herds of camels. Where the tract meets the plain, there is a long series of pools or *náwars,* which are formed by the drainage of the Dák being intercepted by the sandhills. A considerable number of these *náwars* contain water all the year round, except after a succession of unusually dry winters.

Drainage and rivers.

On the northern fringe of the tahsíl is the Régistán desert or "the country of sand," which stretches eastward from Seistán and the Persian border and forms the south-western boundary of Afghánistán.

The general lie of the ground has a steady fall to the south and west, and the main drainage of the hilly country to the east, including Quetta and Pishín, flows into the Nushki plain by the Lora and other smaller streams, all of which find their terminus in the Lora Hámún.

In addition to the Lora and Khaisár, the principal streams in the Nushki tahsíl are the Guráng and Kaláwo which join the Lora about 10 miles east of its junction with the Lora Hámún. With the exception of the Khaisár, none of the rivers have a permanent flow of water.

MINIATURE GAZETTEERS.

Forests.

The principal trees in the plains are the tamarisk and the *tágház*, the latter of which is rather a bush than a tree. Large tamarisks are found in the neighbourhood of Mal and along the banks of the *náwars*. In the Khaisár hills the pistachio and tamarisk are found in considerable numbers. Owing to the small number of the inhabitants there has been no serious deforestation, but when the railway works were under construction (1904) a small forest post was established in the Khaisár hills for the protection of the trees. This post is still maintained, and the right to levy royalty is leased annually to contractors the proceeds being credited to the Forest Department. Cutting wood in the Khaisár forest is prohibited, but in other localities the inhabitants are allowed to cut green trees with the permission of the tahsíldár and dry wood for private use without reference to any authority.

Climate, temperature and rainfall.

The climate of the Nushki plain has already been described in Chapter I. Briefly put the seasons are unequally divided, the transitions from the one to the other are short and sudden, and, considering the altitude of 3,000 feet, the length and heat of the summer are abnormal. The summer and autumn are unhealthy, and this fact, coupled with the bad quality of the water, has left its mark on the inhabitants who are inferior in physique to the tribes of the highlands of Quetta and Kalát. In the winter and early spring the climate is agreeable and apparently more healthy in spite of the great variations of the temperature. The rainfall is irregular and scanty, the average for the last four years (1904) amounting to from 4 to 5 inches. The heaviest fall occurs between October and March. No data are available for the hilly portion of the tahsíl, but it would seem that rainfall is slightly larger.

History.

An account of the early history of the tahsíl has been given in Chapter I under History. The recent history dates from 1896, when the northern limits of the district

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were demarcated by the Boundary Commission, and Captain Webb-Ware was appointed to administer the Chágai-Sanjráni country under the orders of the Agent to the Governor General in Baluchistán. His special duty was to arrange for the safeguard of the Trade Route and the protection of caravans. At this time Nushki was a *niábat* of the Kalát State, and was governed by a *náib* appointed by His Highness the Khán. In July 1899, the *niábat* was taken over on lease by the British Government on an annual quit rent of Rs. 9,000, and in August of the same year a tahsíldár was appointed.

Population.

In 1905 the Nushki tahsíl contained eighteen villages, and the total population according to the census of 1901 was 10,756 (5,735 males and 5,021 females) or 5 persons to the square mile. Of these 10,425 were Muhammadans, 329 Hindus and 2 others. The indigenous inhabitants,* who are Musalmáns of the Sunni sect and who speak either Bráhui or Baluchi numbered 9,979; males 5,288 and females 4,691. The principal tribes represented were the Rakhsháni Baloch (3,313) (including the Jamáldíni, Bádíni and Mándai), the Zagar Méngal Bráhuis (3,647), Muhammad Hasnis (618), Kambráni (182), Saiads (306), the Lángav (578), and the Baréch (253). The number of the Loris and servile dependants attached to the various tribes was shown as 824. The principal villages are the Méngal villages (500), the Bádíni villages (Alam Khán and Kásim Khán) (400), the Jamáldíni village including the Sáhibzáda *tuman* (650), the Nushki bazar (644), Chandan Khán Band (500), Ahmadwál (300), and Bato (600). The chief occupation of the inhabitants of the Nushki bazar is trade. Among the indigenous inhabitants the principal occupation of the Rakhshánis is agriculture, while the Méngals combine it with flockowning and transport.

*The Hindus (329) are excluded from these figures.

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Agriculture.

The supply of perennial water is limited, and the area under permanent irrigation is small compared with the dry crop land which is available for cultivation. The land is generally fertile, the best being the dry crop areas of the Dák and Mal plains and the Khazína tract. The permanent sources of irrigation are the Khaisár stream, eleven *kárézes* and a small spring in the neighbourhood of Mal. The area annually irrigated by the Nushki stream and other sources has been estimated at about 3,000 acres. The extent of the dry crop cultivation is dependent on the winter and spring floods.

The *rabi* or spring harvest is the most important and the chief crop is wheat, which forms the staple food of the people of the country. The autumn harvest is comparatively small and consists chiefly of *juári*, melons and various kinds of millet. A rough estimate made in 1905 of the agricultural stock of the tahsíl puts the number of camels at 1,800, donkeys at 250, bullocks and cows at 500, and sheep and goats at about 6,000.

Communications.

The Quetta-Nushki branch of the North Western Railway traverses the tahsíl from the Galangúr *kotal* to Nushki with stations at Galangúr, Kishingi, and Nushki. The most important road is the Seistán Trade Route which starts from Nushki. This is a good unmetalled road and for the first 7 miles, proceeds in a southerly direction along the skirts of the Garr Range; it then turns to the west and runs along the foot of the Ráskoh hills. The first important stage (32 miles) is at Mal where there is a rest-house, *thána* and *serai*. The other principal routes or tracks are: (1) from Káhnak to Nushki via Panjpái and Singbur (60 miles); (2) from Nushki to Taraki Thána in Afghán territory (20 miles); (3) from Nushki to Garmsél in Afghánistán via Hemún Cháh (11 miles), Band Chandan Khán (18 miles), Saiad Mahmúd Ziárat (20 miles), and Káni (18 miles); (4) from

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Nushki to Chágai via Zangi Náwar (18 miles), Lála (11 miles), and Phul Choto (30 miles); (5) from Nushki to Nímargh in Kalát territory via Siáháf (c. 11 miles) and Khwanki (25 miles); (6) from Nushki to Khárán via Ahmadwál (10 miles), and Táfui (30 miles).

Administration and staff.

The tahsíl is divided into three circles—Nushki, Bághak and Mal, and the staff consists of a tahsíldár, a náib tahsíldár, a muhásib, a kánúngo and three patwáris. The total number of police is 25, all of whom are posted either at the railway stations or at Nushki itself. The levies who are under the immediate charge of the Assistant District Superintendent of Police are stationed at the following places, (1905) :—

Band Chandan Khán ...	5	Trásézai service.
Mal	5	S. Muhammad Ali's service.
Méngal	7	do.
Nushki Thána	22	
" 1st class levies...	32	
Kishingi	6	
Total ...	77	

In addition to the above, 15 sowars are employed as personal escorts to the Assistant Political Agent and the Assistant District Superintendent of Police. The full details of the Levy Service are given in table XVI Vol. B.

Land revenue.

Land Revenue is recovered in kind at the rate of one-tenth of the gross produce. There are also certain cesses which have been described in Chapter III in the section on **Land Revenue.** The question of abolishing these cesses and of raising the rate of revenue to one-sixth is under consideration (1905). Cattle tax is recovered from nomads only. As the greater part of the tahsíl is under *khushkába* or dry crop cultivation, the revenue fluctuates considerably according to the condition of the season. In

1904-5 the total land revenue amounted to Rs. 13,713 of which grazing tax represented 8 per cent.

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Nushki Town, (Latitude 29° 34′ N and Longitude 66° 0′ E, Elevation 2900′) is the head quarters of the District, the starting point of the Seistán Trade Route, and the terminus of the Quetta Nushki Railway. It is 366 miles from Robát Kila, and 94 miles by road and 98 miles by rail from Quetta. The present railway station (1905) is 2½ miles from the town at the foot of the Nushki Gorge to the east of the Khaisár river bed. The building of a new bazar on its present site was commenced by Captain Webb-Ware in 1899 after the transfer of the *niábat* to the British Government. It contains about 50 shops and 70 houses which are chiefly owned and occupied by the local Hindus (*Taldárs*). The shops represent various professions and include 22 dealers in piece goods. There are four places of Hindu worship, where strangers are also accommodated, and one *masjid*. No octroi is levied in the bazar (1905), and the Town Fund, of which the receipts and expenditure in 1904-5 amounted to Rs. 9,762 and Rs. 5,755 is principally maintained by the levy of house and conservancy taxes. Nushki carries on a brisk trade with Shoráwak, Garmsél, Khárán and Seistán, the chief imports being corn, wool, hides and *ghí* and exports piece goods.

The Government buildings include a rest house or *chappar khána*, tahsíl, sub-treasury, police *thána*, post and telegraph offices, two *serais*, quarters for officials, levy post, a primary school, and a civil dispensary. The drinking water is obtained from the Khaisár stream, the quality of which is indifferent, and in years of drought from the Bághak spring. The railway authorities have also sunk a well near the town in the bed of the Khaisár, from which water is piped to the station. In addition to the police and levies already mentioned there is a small detachment

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of Native Infantry (34 rank and file), which furnishes the guard over the sub-treasury. Before British occupation the present site of the town was known as the *Chahár Asiáb*, from the four water mills on the Khaisár stream, and the patron saint is Saiad Khwája Ahmad who is said to have come from Pishín about eight generations ago and whose shrine lies close to the town. The Saiad is reputed to have miraculously increased the water supply of the Khaisár stream.

CHAGAI SUB-TAHSIL.

General features.

The Chagai sub-tahsil lies between 28° 19′ and 29° 34′ N., and 63° 15′ and 65° 35′ E., and is bounded on the east by the Nushki tahsíl, on the west by the Western Sanjráni tract, on the north by the Régistán and the stony wastes south of the Helmand, and on the south by the Ráskoh Range. It has an area of 7,283 square miles. The western boundary starts from the Gaukok hill near the Galicháh wells and runs north-west to Manzil Chauki, and thence north to the Baloch Afghán boundary opposite Gidan Koh.

The country between the Chágai and Ráskoh hills, which has already been described in Chapter I, consists principally of the two large alluvial plains of Chágai and Dálbandin. The latter is an extensive plain of an average breadth of about 9 miles, confined on the north and south by the Chágai and Ráskoh hills, and extending east and west for a distance of about 20 miles until it is lost in heavy sand hills. It is chiefly irrigated by flood water brought down from the Chágai hills by the Bulo river.

In its present condition the whole country is better suited for stock-rearing than for agriculture, and in most parts affords good grazing for camels, sheep and goats. The large bulk of the inhabitants are pastoral, and own considerable numbers of flocks and herds with which they migrate from place to place in search of fresh feeding

grounds. According to a rough calculation made in 1905, the number of animals owned by the inhabitants, excluding the immigrants, was as follows:—camels 3,500, donkeys 350, bullocks and cows 400, and sheep and goats 30,000. MINIATURE GAZETTEERS.

Population.

In 1905 the number of villages was shown as twenty-two, but with the exception of Chágai proper, the others can scarcely be dignified by this name, being simply a collection of blanket or wattle huts erected for the temporary residence of the nomads. The population in 1901 numbered 4,933; males 2,524, females 2,409, or one person to 1½ square miles. By religion all are Sunni Muhammadans and speak either Bráhui or Baluchi. The principal tribes represented were the Muhammad Hasnis, 3,718; the Méngals 963 and the Sanjránis 189. Their principal occupation is flock-owning. The Notézais, a section of the Muhammad Hasnis, are the chief camel breeders, and the Kamarzai and Dah-mardag, also sections of the same tribe, are the principal owners of sheep and goats. The number of agriculturists is limited and includes the Sanjránis, Notézais, Baréch and Baláhoshi Saiads. The Sanjránis are the ruling tribe and the chief landowners, but of recent years both their numbers and importance have greatly diminished.

Agriculture

The area under permanent irrigation forms a very insignificant portion of the whole cultivable area. According to an estimate made in 1905, about 100 acres are permanently irrigated, while 1,570 acres represent the average annual area of the *khushkába* or dry crop cultivation. The soil of the plains is alluvial and the portions subject to the spill of the hill torrents are fertile. The supply of permanent water in the Chágai circle is obtained from six *kárézes* and two springs. Padag comes next with five *kárézes*, while the Dálbandin circle has only one *káréz* and two springs. All these *kárézes* are, however, small and

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unimportant, the largest being the Lijji in the Chágai circle, which irrigates an average annual area of 22 acres only. The *rabi* or spring harvest is the most important, the chief crop being wheat. The autumn harvest is small and consists principally of *juári*. The country cannot supply sufficient food for its inhabitants, who are compelled to import wheat from Garmsél and dates from Khárán.

Forests.

There are no reserved or protected forests in this area. Large numbers of tamarisk trees are to be found on the Chágai plain and to the south of Dálbandin, while the majority of the upper reaches of the beds of the hill torrents are thickly grown with tamarisk undergrowth. The pistachio or *gwan* are found in the higher parts of the Chágai and Ráskoh hills. The Barot valley, to the south-west of Mérui, contains a grove of date trees, but the trees are small and the fruit is of an inferior quality. There is an abundance of grass in the spring and early summer, and the plains are covered with the *tághaz* and otber bushes which afford excellent grazing for camels.

Climate, temperature and rainfall.

There are no recording stations, but the climate and temperature of the lowlands of Chágai is very similar to that of the plains of Nushki. The rainfall also is irregular and scanty, the average being from 4 to 5 inches in the year. Snow falls on the higher peaks of the Ráskoh and on the Barábcháh plain (about 5,000′) in the Chágai hills.

Communications.

The principal road is the Seistán Trade Route which traverses the tahsíl from Kuchaki Cháh to Tratoh, the

stages and the strength of levies at each post being as under:— MINIATURE GAZETTEERS.

Miles from Nushki.	Name of stage.	Strength of levies.
48	Kuchaki Cháh	1
61	Padag	5
84	Yádgár Cháh	6
100	Karodak	1
116	Dálbandin	42
134	Chakul	1
148	Sotag	1
161	Mérui	9
181	Cháh Sandán	5
204	Tratoh	5

The most important tracks that take off from the Trade Route are; (1) from Padag to Khárán; (2) from Dálbandin to Khárán; (3) from Dálbandin to the Helmand via Barábcháh. The details of these routes are given in table VI, Vol. B. The Meski-Butak and Barábcháh route crosses the Trade Road at Karodak, the Meski-Sukaluk and Yakmach road at Cháh Sandán, and the Khárán and Gargarok route at Dálbandin. The direct route from Chágai to Khárán passes between Yádgár Cháh and

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Karodak; and from Padag a track takes off in a north-westerly direction to Chágai, and thence to Barábcháh and the Helmand.

History.

Little is known of the ancient history of Chágai. The earliest settlers appear to have been the Arabs, who were followed by the Balánoshi Saiads, who in their turn were dispossessed by the Sanjránis, the present landlords of the country. Chágai does not appear at any time to have had any connection with either Kalát or Khárán, and for many years its dealings were exclusively with Afghánistán. This portion of its history is given in detail in Chapter I. After the Baloch Afghán Boundary Commission it was declared a part of Baluchistán, and in December 1896 Captain (now Major) Webb-Ware, C.I.E., was appointed as the first British officer in charge. In 1901 it was formed into a sub-tahsíl with its head quarters at Dálbandin.

Administration and staff.

For purposes of revenue administration, the sub-tahsíl is divided into 3 circles and is under the charge of a náib tahsíldár, who is assisted by a staff consisting of 1 muhásib and 3 patwáris. There are also 18 headmen who are remunerated by Government and who assist in the collection of revenue (1905). The náib tahsíldár is also in direct charge of the Trade Route within the limits of his jurisdiction. There are no police, and the police duties as well as the revenue work of the tahsíl are undertaken by the levies under the orders of the náib tahsíldár. The total strength of the levies is 81,* the details of which are given in table XVI, Vol. B.

Land revenue.

An account of the revenue system of the days before British occupation is given in Chapter III. Revenue was first levied by the Government in 1901 when one-eighth of the total produce was taken in kind. In 1902 the rate

* Includes 22 first class levies employed at Dálbandin, and also the Barábcháh post (5 men).

was raised to one-sixth, which corresponds with the usual rate levied in other parts of Baluchistán. Grazing tax is also recovered from all flock-owners whether permanent or nomads, and forms the principal source of revenue. In 1904-5 it represented 83·6 per cent. of the total collections (Rs. 6,073).

Products.

The chief products of the tahsíl are *ghí*, wool, camel hair, hides and asafœtida. Honey is also found in considerable quantities in the lower hills and has more than a local reputation. At one time it formed part of the annual tribute paid to Afghánistán.

Chagai is a small village about 32 miles north-east of Dálbandin; situated between 29° 18′ N. and 64° 42′ E., at an elevation of about 2,774 feet. It is the head quarters of the Sanjráni tribe and has given its name to the whole District. Local tradition attributes the origin of the name to the number of *cháhs* or wells which are said to have formerly existed in the neighbourhood. It now (1905) consists of a ruined mud fort, and a small cluster of about thirty mud houses of which five are *banias'* shops. The fort was occupied by an Afghán garrison from June 1886 to May 1896, when after the Afghán Baloch Boundary Commission it was vacated by the Afgháns and handed over to the Sanjránis. It was, however, never re-occupied and is fast falling into ruin. The Sanjránis regard it with disfavour and attribute their misfortunes directly or indirectly to its erection. It is also said to be haunted by a malignant spirit, and no tribesman will approach the vicinity of the building after nightfall, much less enter its precincts. Chágai is also noted for having afforded refuge to the late Amír of Afghánistán, Abdul Rahmán Khán, after his defeat in the Hazárját (1869). The population comprises about 37 families; Sanjránis, including the Baréch, 18, Loris 6, Tauki 5, Sásoli 4 and the Khwájazai Saiads 4. They are mostly

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pastoral and own sheep and goats which they graze in the neighbouring hills. They also cultivate a small amount of *khushkába* land. Drinking water is obtained from four wells, at a depth of about 25 feet. The principal men are Mír Ali Khán, the chief of the Sanjránis, who is in receipt of a monthly allowance of Rs. 350 and his *náib* Dost Muhammad, Baréch. Mír Ali Khán has a *mehmán khána* or guest house where he entertains strangers. There is a small trade with the Helmand and Nushki, the principal imports from the former being wool and *ghí* which are forwarded to Nushki. The export trade chiefly consists of cotton piece goods and sugar. The well known shrine of Saiad Bala Nosh is about 11 miles to the north of Chágai.

Dalbandin.—The head quarters of the Chágai sub-tahsíl lies in the Dálbandin plain in 28° 45′ N. and 64° 33′ E. It is 201 miles (11 stages) from Quetta and 110 miles (6 stages) from Nushki. It is also an important post on the Seistán Trade Route, and consists of a levy *thána*, quarters for the tahsíldár and the tahsíl officials, four *banias'* shops, a caravan *serai*, post and telegraph offices, and a rest-house for travellers (1905). All ordinary supplies can be obtained in the small bazar, and fodder, if required in large quantities, can be collected if previous notice is given to the náib tahsíldár. The levies at present (1905) number 42 and include 2 jemadárs, 2 daffadárs, 1 munshi, 30 sowars, and 7 footmen. Drinking water is obtained from the Sargesha *Káréz*. The shopkeepers carry on a fair trade with Garmsél, Jálk and Khárán, the chief imports being grain, *ghí*, wool, and dates while the exports are mainly piece goods of the cheaper kind.

WESTERN SANJRANI. General description.

The Western Sanjrani tract is a triangular strip of country lying to the west of the Chágai sub-tahsíl from which it is separated by a line running due south from

the Gaukoh hill to the Siáneh Koh Range. From this point the southern line runs along the water-shed of the Siáneh Koh till it meets the Perso-Baloch frontier line which it follows to Koh-i-Malik Siáh. The northern side of the triangle is formed by the Afghán Baloch boundary, and the apex by the junction of the two boundaries at Koh-i-Malik Siáh. The country consists for the most part of a barren desert, with plains of black gravel divided by belts of sand and studded with extinct volcanic peaks.

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The hills on the north and west have been described in Chapter I (Physical Aspects). The rivers in the south-west are the Tahláb and the Mírjáwa both of which have a permanent supply of water. Hill torrents are numerous, and among others may be mentioned, the Siáh Koh, Shamidán, Lár Koh, Kacha, Saindak and Amaláf *nullahs.* None of these have any water except after rain.

Tamarisk grows in considerable quantities in the Kacha Koh range and in favourable seasons there is good grazing in all the hills. In the bed of the Kacha river there are large patches of a coarse reed, known as *nár*, that grows to an unusual size, and is famed among the Baloch who use it for the pipes of musical instruments.

Climate, temperature and rainfall.

The climate differs little, if at all, from that of Nushki and Chágai, though perhaps the temperature in summer is somewhat higher than that of Nushki. The cold in winter is only severe when the winds prevail. Great changes in temperature between day and night are the rule, but however great the temperature by day may be hot nights are seldom experienced.

This part of the District is exposed to the effects of the *bád-i-sad-o-bist-roz* (or wind of 120 days) which blows steadily from the fifteenth of May till the middle of September.

The rainfall is probably somewhat less than that of Nushki, but no data are available.

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Fauna.

With the exception of snakes and scorpions there is a great dearth of animal life in the plains and sandy deserts. There are a few gazelles and some wild asses but these are seldom met with. In the hills ibex and oorial are found, but game birds are scarce.

History.

Little is known of the early history of this tract. Ancient ruins are met with in different parts of the country and there are traces of what appear to be old mines in the Saindak hills; but there are no local traditions of any value, and, as is usual in this part of the country, all ruins are ascribed to the Arabs. The country is barren and itself of no great value, and from its position for generations has owned no master. It has consequently become the haunt of outlaws and robbers, and though but sparsely inhabited was subject to frequent raids by the Dámanis and other wild clans from the Persian border. It became a part of British territory in 1896 after the conclusion of the Perso-Baloch and Afghán Boundary Commission, and was placed under the charge of Captain (now Major) Webb-Ware, C.I.E. In the early days of British occupation it was troubled by raids by the Dámanis, but these have now ceased and the western portion of the foute has been rendered safe by the establishment of levy posts at the various stages. As the greater portion of the country is practically a desert, and there was no settled population with the exception of a few families of Rékis and Dámanis at Mírjáwa, it was excluded from the census of 1901. In favourable years when grazing is abundant it is visited in the winter months by nomad encampments of the Mámásánis, Shérzais, Dámánis, Rékis and other tribes. The total number of these nomad visitors may be estimated roughly at a hundred or two. They are, however, chiefly migratory, passing through the district on their way into the Persian Sarhad from the valley of the Helmand. There are

seldom more than fifty or sixty families to be found in the hills on the British side of the border where the grazing is scarce compared with that in the hills further to the south-west. MINIATURE GAZETTEERS.

In years of drought the country is practically deserted.

There is no agriculture, the only cultivation being confined to a few acres near Mírjáwa and to small patches in the Lár Koh hills.

Communications.

The important route is the Seistán Trade Road which traverses the country from Kundi to Robát, a distance of 140 miles. The principal stages and the strength of the levies at each post are as under:—

Distance from Nushki.	Name of post.	Total strength of levies.
226 miles ...	Kundi	4
248 " ...	Mashki Cháh	11
261 " ...	Humai (Tuzgi)	3
300 " ...	Amaláf (Mukak Káréz)	6
307 " ...	Saindak	13
325 " ...	Kirtaka	6
342 " ...	Cháh Muhammad Raza	5
366 " ...	Robát	57

The following routes pass through Kundi (1) from Meski to Amír Cháh via Isa Táhir and (2) from Khárán to Amír Cháh via Hurmágai and the Galacháh pass. The

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route from Seh-Koha (Seistán) to Khárán via Bandar Kamál Khán and Amír Cháh passes through Mashki Cháh. From Mashki Cháh an alternative route goes to Saindak via Sáhib Cháh (28½ miles), Mukak (23½ miles) and Saindak (13½ miles). A path goes from Cháh Sandán to Saindak via Amír Cháh (distance 139 miles divided into seven stages.) From Saindak a path leads to Mírjáwa (23 miles,) and Ládis (12 miles.) There is a direct route from Mírjáwa to Robát via Duzdáp (25 miles,) Cháh Muhammad Khán (36 miles,) and Robát (25 miles,) total 86 miles.

In addition to the levies on the Seistán route small posts are established at Kila Suféd (11 levies) and at Amír Cháh on the Afghán border (5 levies.)

Administration.

The Western Sanjráni tract is under the direct charge of the Assistant District Superintendent of Police.

The construction of a dispensary at Saindak is under consideration (1905.)

Land revenue.

Asafœtida grows in abundance in favourable years on the Koh-i-Sultán and Kacha Koh. In former times the Sanjránis levied revenue on this drug and the annual collections amounted to about Rs. 300. Since 1898, a tax of 7 per cent. of the total produce is levied in kind, and the actual receipts during the seven years ending with March 1905, averaged Rs. 247 per annum. In addition to asafœtida, deposits of sulphur, alum, ochre, copper and antimony are also found in the hills, but owing to the great distances and the want of transport these have no great commercial value.

Rabat or Robat Kila. Is the last stage on the Nushki-Seistán Trade Route and is 366 miles (21 stages) from Nushki and 460 miles (27 stages) from Quetta. It is built on the banks of the Shamidán *nullah* about 2½ miles east of the Robát Koh at an elevation of about 2,60'0. The post consists of a levy *thána*, *serai*, post office, tele-

graph office, *bania's* shop and a *chappar khána* or rest house for travellers. The water, which is good and abundant, is obtained from the Sar Robát spring. The telegraph line was extended to Robát Kila in January 1904. The levies consist of 1 risaldár, 1 jemadár, 3 daffadárs, 47 sowars, 4 footmen and 1 munshi. Ordinary supplies can be obtained at the post, but grazing and firewood are scarce. Nasratábád, the capital of Seistán, is 106 miles, or 8 stages from the Robát post. MINIATURE GAZETTEERS.

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APPENDICES.

CHAGAI.

APPENDIX I.

Northern boundary of the Chagai District.

Extract from the translation of joint agreement executed on the 13th May 1896 by Captain A. H. McMahon, British Commissioner and Muhammad Umar Khán, representative of His Highness the Amír of Afghánistán, joint Commissioners on the Indo-Afghán Boundary Commission, Baluchistán Section.

(The portion of the boundary between Domandi and the peak at the head of the Inzargai and Talai *nullahs* lies in the Zhob and Quetta-Pishín Districts).

From here the boundary line runs in a south-westerly direction for some 12 miles along the crest of the water-shed which divides the water draining to the west into the upper branches of the Kurram and Goari *nullahs*, and that draining to the east into the Shorarúd and Singbur *nullahs* as far as boundary pillar CXLIII, erected on a prominent peak situated on the same water-shed at the head of the most eastern of the upper branches of the Tirkashi *nullah*. From here the boundary line runs in a straight line towards and slightly southwards, crossing the head of the Tirkashi *nullah* to boundary pillar CXLIII (a) erected on a prominent peak commonly known as Dék at the head of the Tirkashi *nullah*. Continuing in the same straight line the boundary line crosses the head of the Dilshád *nullah* to boundary pillar CXLIII (b) erected on a prominent peak at the head of the Kárawán Kush and Jori *nullahs*. From here the boundary line still continues in the same straight line and, crossing the Goari Mánda *nullah* at a point where boundary pillar CXLIII (c) has been erected, runs to boundary pillar CXLIV, erected on a prominent peak on the crest of the water-shed of the Sarlat range and immediately south of the head of the *nullah* in which is situated the Mián Haibat Khán Ziárat and which flows eastwards into the Goari Mánda. This peak also happens to be situated exactly on the straight line between boundary pillar CXLIII, and a point two miles due south of the top of the low hill close to and south of the Káni well.

Clause III.—We have jointly agreed that from boundary pillar CXLIV, erected on the crest of the main water-shed of the Sarlat range, the boundary line runs, as shown in the attached map, in the same straight line westwards and slightly southwards to a point two miles due south of the top of the low hill which is close to and south of the Káni well. At this

APPENDIX I—(*contd.*)

point boundary pillar CLVII has been erected. This straight line has been further marked by the following boundary pillars as shown in the map* attached, i.e., boundary pillar CXLV, which has been erected at a short distance from boundary pillar CXLIV, on a slightly lower ridge of the Sarlat range; boundary pillar CXLVI, erected about two miles further down on the western slopes of the Sarlat; boundary pillar CXLVII erected on the north slope of a small prominent isolated hill, known as Kambar Koh at the foot of the Sarlat; boundary pillar CXLVIII, CXLIX, CL, which have been erected on ridges of the sandhills which lie between the foot of the Sarlat range and the Lora river; boundary pillar CLI erected in the plain about 1¼ miles due east of the Lora river, boundary pillar CLII erected on the west bank of the Lora river, boundary pillar CLIII erected about 100 yards north of the Bulandwál tower; boundary pillars CLIV and CLV erected on the plain; and boundary pillar CLVI erected at a point about 400 yards south of Partos Náwar, where the boundary line enters the sandhills of Régistán. Beyond this point, as far as boundary pillar CLVII, boundary pillars have not been erected owing to the sand. This straight line, from boundary pillar CXLIV to boundary pillar CLVII, passes about one mile south of the hill known as Jari Mazár, about two miles south of Siáh Sang, about 7½ miles south of the Sayd Bas Ziárat and about 1¼ miles south of the Páprang Band. After entering the sandhills of Régistán at boundary pillar CLVI, some 400 yards south of Partos Náwar, the boundary line runs in a straight line through sandhills to boundary pillar CLVII, which, as before mentioned, has been erected at a point two miles due south of the top of the small hill close to and south of the Káni well. From boundary pillar CLVII, the boundary line which we have jointly agreed upon, runs in a straight line westwards and slightly northwards to the Shibián Kotal. This line crosses the north portion of the Lora Hámún. Boundary pillar CLVIII has been erected on the line at about 1¼ miles north of the Kunzai hill which is situated on the west bank of the Lora Hámún. The boundary line thus passes to the north of the Gazecháh wells. Boundary pillars CLIX and CLX erected on high prominent peaks, mark where this line crosses the mountain between the Lor Hámún and the Shibián Kotal. Boundary pillar CLXI has been erecte at the crest of the Shibián Kotal and is on the crest of the water-she dividing the water of the Shand *nullah* on the north from the wate of the Shibián *nullah* on the south which flows into the Lora Hámú From the Shibián Kotal the boundary line, which we have joint

*Map ot reproduced.

agreed upon, runs westwards, as shown in the attached map along the south water-shed of the Shand *nullah* to the head of that *nullah* and thence follows the crest of the main water-shed which divides the *nullahs* which flow northwards through Pasht-i-Koh from the Telarán, Mahián, Buznai and other *nullahs* and their branches which flow southwards. The boundary line follows this well-defined water-shed as far as the Mazari Kotal, to boundary pillar CLXII, which has been erected on a peak on the crest of the same water-shed just south of the Mazari Kotal. Between the Shibián and Mazari Kotals the water-shed which forms the boundary is naturally well defined by a continuous line of high mountains with prominent peaks, and it was considered unnecessary to further demarcate it.

Clause IV.—We have jointly agreed that the boundary line, from boundary pillar CLXII, near Mazari Kotal, runs for about 7½ miles along the same water-shed, i. e., that dividing the Mazari, Kushtagán, and other *nullahs* on the south, from the Barábcháh *nullah* on the north, as shown in the attached map, as far as boundary pillar CLXIII, which has been erected on a prominent peak on that water-shed. The boundary line then leaves this main watershed and runs north-west for about 3¾ miles along the crest of a spur, which separates the main, i.e., northern, branch of the Barábcháh *nullah*, from the southern branches as far as boundary pillar CLXIV, which has been erected on a prominent peak at the end of that spur. From here the boundary line runs in a straight line westwards and slightly northwards for about 29 miles to boundary pillar CLXXII, which has been erected at a point six miles due south of Robát. Along this straight line, to mark the boundary, boundary pillars CLXV, CLXVI, CLXVII, CLXVIII, CLXIX, CLXX, CLXXI have been erected at prominent points, as shown on the attached map.

From boundary pillar CLXXII, the boundary line turning westwards and slightly southwards, runs in a straight line, except for a short distance at Jilijil, as noted below, to a point 12 miles due north of Amír Cháh, through boundary pillars CLXXIII, CLXXIV, CLXXV and CLXXVI, as shown on the map attached. Boundary pillar CLXXV is situated on a hill known as Par close to and north of the Cháh-i-Marak. Boundary pillar CLXXVI is at the foot of the southern slopes of the hill known as Lorai, which is on the north bank of the *nullah* known as Cháh-i-Marak *nullah*. From boundary pillar CLXXVI, the boundary line turns then due south and runs to a distance of half a mile to the south of the bed of the large *nullah* in which Soru and Jilijil are situated. The Soru water is

thus left on the British side and the Jilijil water on the Afghán side of the boundary line. The line then runs along the sandhills at a distance of ½ mile to the south of the bed of the above *nullah* to a point near Khaisan Lok, where the main road from Jilijil to Darband leaves this *nullah*. Here the boundary line joins and thence runs along the straight line shewn between boundary pillar CLXXII and boundary pillar CLXXVII erected at a point 12 miles due north of Amír Cháh. This line passes through the north slopes of a prominent sandhill known as Khaisan Lok and passes about 2½ miles south of the top of the Kamarghar hill, about three miles south of the top of Gidan Koh, about 2½ miles south of the top of Harag hill, about 8 miles north of Darband, and about seven miles north of the top of the Gharíbo hill. Owing to the heavy sand along its course it has not been possible to demarcate the boundary line beyond Soru by boundary pillars.

Clause V.—We have jointly agreed that from boundary pillar CLXXVII erected at the point 12 miles due north of Amír Cháh, the boundary line runs in a straight line north-west, as shown in the attached map for about 97 miles to the top of the Koh-i-Malik Siáh. As this boundary line runs through sand and desert, it has been considered unnecessary to demarcate it for some distance by boundary pillars. It passes about 22 miles north of the Koh-i-Dalíl, about 20½ miles north of Drána Koh, about 10 miles north of the Garuk-i-Gori hill, about 16½ miles north of the Kirtaka spring. It passes about 1½ miles south of the most southern point of the God-i-Zirreh, about 8 miles south of the ruins of five old buildings, which are situated in a row, a short distance to the south of the Shélag *nullah* and commonly known as Gumbaz-i-Sháh about 13 miles south of the Ziárat-i-Sháh-i-Mardán and ruins known as Godar-i-Sháh on the north bank of the Shélag *nullah*. Between the point where this boundary line leaves the sandhills and the top of the Koh-i-Malik Siáh, the following boundary pillars have been erected on this straight line, as shown in the attached map, i. e., boundary pillars CLXXVIII, CLXXIX, CLXXX, CLXXXI and CLXXXII on the plain; CLXXXIII on a conspicuous ridge of the low hills south of the Robát *nullah*, CLXXXIV on the south bank of the Robát *nullah*, CLXXXV on the north bank of the Robát *nullah*. From there the line crosses the eastern slopes of the Koh-i-Robát and runs up to boundary pillar CLXXXVI, which has been erected on the top of the Koh-i-Malik Siáh. This line crosses the Robát *nullah* just above the lower Robát springs and leaves the upper Robát spring some 2½ miles on the south of it.

CHAGAI.

APPENDIX II.

The following account of the Botany of the District is extracted from the "Botany of the Afghán Delimitation Commission."*

"The most interesting plants found on the hills and on rock-formations were:—*Stocksia Brahuica*, a thorny shrub or small tree, first collected between Khanak and Panj-pai on the 24th of September, and subsequently more or less frequently as far as the Helmand. In its autumnal garb, when leafless, and covered with its brilliantly coloured inflated fruit, it was very showy. It is called by the natives *Koh-tor*, or the mountain peach, no doubt from the attractive colouring of the fruit. *Pistacia Terebinthus*, var. *mutica*, was occasionally seen on limestone, occurring in some numbers. This is the only indigenous tree of Baluchistán that grows to any size; several I measured were over 9 feet in girth at 6 feet from the ground; but in height none were over 20 feet. *Zygophyllum atriplicioides*, a shrub from 4 to 6 feet in height, with fleshy leaves, bright yellow flowers, and curious winged fruit, was seen everywhere, from the stony bases of the hills into the gravel plains. *Perowskia abrotanoides*, a very attractive Labiata, forming a close bush 3 to 4 feet high, was general among the rocks; *Periploca aphylla* and two species of *Ephedra*. *Ephedra pachyclados?* was the common one, being very profuse amongst broken rock, boulders, etc., as well as on the gravel plains. The native name for the *Periploca* and the two species of *Ephedra* is *hum* or *huma*, the natives not distinguishing between them. *Tamarix gallica* is a large shrub, the presence of which in quantity and size would, I think, indicate water at no great depth. Further, *Pteropyrum Aucheri*, *Rhazya stricta*, *Stellaria Lessertii*, *Lactuca orientalis*, *Anabasis* sp, *Pennisetum dichotomum*, *Euphorbia osyridea*, *Astragalus hyrcanus*, *Calligonum comosum*, inhabit this region at the base of the hills, and extend thence over the gravel country.

"On the gravel and clay plains the vegetation was extremely sparse and stunted; among the prevailing plants, *Alhagi Camelorum* was generally spread over the country, and in some favoured localities it grew in luxuriance and dense masses, through which it was hard to get our horses to go, owing to its numerous objectionable spines. This shrub is usually from 1 to 2 feet in height, occasionally as much as 3. The ordinary term here for the plant is "Camelthorn," as it is one of the chief sources of supply of fodder for these animals. In certain seasons it yields a manna. *Peganum Harmala*, *Sophora mollis*, *Sophora Griffithii*, and two species of *Heliotropium*

* *Transactions of the Linnean Society*, Second series—Botany, Volume III, 1887.

were more or less frequent; and where saline matter impregnated the soil, the following shrubs were often in great luxuriance, *Salsola Kali*, *Salsola arbuscula*, *Salsola fœtida*, and several others, with *Halanthium* sp., *Halocharis sulphurea*, *Haloxylon salicornicum* and *H. Griffithii*.

"On the sand-dunes and between the hillocks formed by the sand-waves vegetation was more general and of stronger growth than one would have expected to find on first seeing this formation. This is no doubt due to the deeper layers of the sand being able to retain moisture, down to which the roots easily penetrate through the soft superstructure. The characteristic shrub, often almost a tree in size, is *Haloxylon Ammodendron*, which is the *Tá-gaz* of Baluchistán, and its smaller branches yield the best camel-fodder of the country, and, unlike the Tamarisks, the camels can live continuously upon it without its impairing their health. In general appearance it resembles light-green Tamarisk, hence its native name; but it is at once distinguishable by its pendulous branches and grey white stems; hence the European name White Tamarisk. Although this shrub is found in all directions, it certainly seems to prefer, and grows in greatest luxuriance on these sand hills. *Tamarix macrocarpa* and other large shrubby species were common. At Omar-sha (Umar Sháh) where we encamped on sand hills, there were some trees, probably planted, of *Tamarix articulata* with trunks, 9 feet in girth and over 30 feet in height, and associated with them were some trees of *Tamarix macrocarpa*, from 4 to 6 feet in circumference, evidence of the size this species may attain in a favourable locality. The ordinary native name for the latter is *Kirri*; and this term was equally applied to *T. articulata*, although the two species were recognized as different. *Tamarix articulata*, having no special native name here, leads one to surmise that it is not indigenous to this part of the country. At Zaru (Zahro), close to our encampment, were some large bushes of *Lycium barbarum*, almost devoid of foliage, but covered with bright red fruit, very like small capsicums. Here we lost several camels from no known cause, though all those found dead were lying near these bushes, and had been eating greedily of the berries. I opened several camels, but the post-mortem showed no symptoms of irritant poisoning, yet there was nothing I could detect in their paunches except the berries. From the camels having died so suddenly I suspected narcotic poisoning, and yet a *Lycium*, although nearly allied to a poisonous genus, is not supposed to be itself poisonous. I carefully examined the whole country round, and there was nothing else they could have eaten

APPENDIX II—(*contd.*)

of a poisonous nature. The natives declared the *Lycium* was *not* poisonous and subsequently I often saw camels browsing on this shrub without any ultimate evil effects.

"In some localities the sand-dunes were covered with *Euphorbia cheirolepis*; a very elegant species, which still, late though the season was, maintained its green foliage. *Tribulas alatus* covered the tops of the sand-dunes in many places with a sward. *Cyperus pungens* at this season only existed in numerous leafy tufts, and very little of the fruiting heads were obtained, though sufficient for identification. *Convolvulus erinaceus* was not uncommon. Peculiar looking balls formed of a prickly fruited shrub, *Agrophyllum latifolium*, with few or no leaves were noticed rolling about, driven by the winds hither and thither over the flat clay plains (or *Pat*) occasionally accumulating into heaps. This shrub grows in loose sand, and as it is very leafy it is easily lifted out of its position by the wind and, being driven out, it takes the form of a ball, which is often increased in size by coming in contact with other similar plants. It was soon dubbed "the wanderer"; the natives call it the "spinning wheel," in allusion to this peculiarity. It was curious to note the condition of the roots of the plants that live in these beds of pure sand; some, like the *Haloxylon*, thrust their roots so deeply into the sand as to anchor themselves in the solid ground beneath; others like *Euphorbia*, with slight stems, little affected by the wind, do not require to be so firmly fixed, and do not root so deeply; grasses and sedges have their fibrous roots greatly lengthened, and develop a spongy tissue as thick as a goose-quill. These spongy enlargements serve two purposes, one for holding fluid for future requirements, and the other for maintaining the position of the plants, each root acting as an individual anchor. The same plants not growing in this loose sand did not possess this peculiar development of their roots. Indeed all the plants that occupy these sandy dunes have a hard struggle for existence; not only have they much to do to keep themselves in position on account of the wind, but when sand is heaped upon them they have to learn to keep themselves alive under the superimposed weight and at the same time to fight their way through it. Furthermore the sand blown on them during summer is hot and dry, so hot and dry that unless these plants are capable of collecting and maintaining a supply of moisture, they must inevitably perish from drought. On other occasions their surrounding medium may be suddenly removed by wind, leaving them to be blown about with the chance of being utterly destroyed before

they can be again partially covered with sand and thus afforded the means for supporting life.

"In stream-beds amongst thickets of Tamarisk, where there were perennial streams, as at Kaisar and Mamu, the *Oleander* was met with. It is well known to the natives, and said to be common in such localities all over the country. This shrub was very destructive to camels, especially when it was spread through the Tamarisk thickets, as these animals never seem to learn not to browse on it. The native name is *jaur*, a corruption of the Persian word for poison. Climbing over these shrubs *Clematis orientalis* was in great luxuriance; and on the shady side of some rocks a variety of *Mentha sylvestris*, growing seven feet high, was common. *Andropogon laniger*, a lemon-scented grass, formed turf in the vicinity of the stream, as also *Juncus maritimus*. *Erianthus Ravennæ*, the *munj* of the Punjab, was occasionally observed in great clumps. Where the stream spread out into broader shallows, flooding the low land occasionally, *Arundo Donax* occurred together with *Phragmites communis*, forming great beds; the latter, where the water was brackish and the soil saline, was extremely dwarfed with rigid and sharp-pointed leaves. In the Tamarisk groves a large purple-flowered *Orobanche* was occasionally seen, perfect in form and colour, but dried to a cinder, so that it could not be preserved, as on the slightest touch it crumbled into dust.

"The fodder supplied to us for our cattle during our journey consisted of the crushed straw of wheat and barley and of the stems of millet (*sorghum*). Occasionally, in addition to these, the stems of *Pennisetum dichotomum* were also served out. These stems were from 1 to 3 feet in length, resembling miniature bamboos; and thus they were termed in camp. Notwithstanding their hardness, they were greedily eaten by our horses, much to our amusement and wonder. The natives call this grass *Barshonk*, and it grows on the stony formation at the bases of the hills only.

"At Gaz-i-cha we encamped in a great meadow of *Eragrostis cynosuroides*, which was here unmixed with any other grass. It was called *kirthag*, and grew in deep pure sand. Such a locality was looked upon as an oasis of plenty for our cattle and this particular grass was considered very fattening, though had any of our horse-keepers supplied us with it in India, the result, I fear, would have been a general commotion in the establishment. *Aristida plumosa* is highly valued and an excellent fodder, growing in luxuriance on the sand hills of the desert, where usually no other grass is to be seen. It occurs in small separate tufts, from 4 to 6

inches in height, and is called *mazj*. Sheep are especially fond of it. Several creeping species of *Æluropus*, were often mistaken by members of the mission for *Cynodon Dactylon*, the *dub* of India. These were profuse, especially on the saline plains. *Cynodon* I did not see in Baluchistán, except at Quetta, where it was in abundance on the sides of irrigation channels. Between Bozdan, Mamu and Galicha, from the numerous dry leaves found driven about by the wind, a species of *Ferula* was detected in these gravel plains. After much seeking one leaf was at last discovered attached to a root-stock. On digging this up, there was no doubt, from its general appearance and the odour its fractured surfaces emitted, that it was the root of a species yielding *Asafœtida*. Not a single stem was obtainable, but, from the quantity of leaves seen, the plant must be abundant in this locality. The curious thistle-like umbellifer, *Pycnocycla Aucheriana*, was not rare, chiefly present in stony ground; happily sufficient material was collected for its accurate determination. It produces a yellowish gum-resin, and the root stock, when employed as fuel, emits a very offensive odour. One specimen only of the rare Crucifer *Cithareloma Lehmanni* was obtained in the desert between Nushki and Sanduri."

CHAGAI.

APPENDIX III.

List of common trees and plants in the Chágai District.

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Aghut ...	Sonchus Oleraceus.	In ravines ...	Fodder for camels, sheep and goats. In times of scarcity also eaten by poorer classes.
Alonj ...	...	Hills ...	Fodder for sheep and goats.
Anjír ...	Ficus virgata ...	do.	Fruit.
Archin ...	Prunus Eburnea.	do.	Wild almond.
Askaw ...	...	In sands only ...	A fodder for camels, sheep and goats.
Barshonk ...	...	Plains and river beds.	Fodder for horses, cattle and donkeys.
Bíbíbutau ...	...	In beds of hill torrents.	A thorny plant eaten by camels.
Boimádrán ...	Achillea millefolium.	in the vicinity of Nushki.	Dried flowers used as drug for fever and stomach-ache.
Borko ...	...	River beds ...	Fodder for camels, sheep and goats.
Brinjásk ...	...	Hills ...	Infusion used as medicine for cough.
Bunnu ...	...	River beds ...	Fodder for cattle.
Chambarak *Chamar* Bl.	Malcolmia Africana	Dák plains in Nushki.	Green plant used as vegetable, dry as fodder for cattle.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality Where found.	Brief remarks as to uses, etc.
Chárko ...	...	In the skirts of hills & ravines.	Fodder for camels, sheep and goats.
Dáníchk ...	Plantago Amplexicaulis.	...	...
Drug ...	Eragrostis cynosuroides	In salt land especially, in Kuchaki Cháh.	An excellent fodder for cattle.
Gadago ...	...	In Dák plain ...	Fodder for camels, sheep and goats.
Gandarém ...	...	In fields	Infusion mixed in *ghí* is given to children suffering from fever.
Garbust ...	Lepidium Draba..	In wheat and barley fields.	Green used as vegetable and dry as fodder for cattle.
Gehmard ...	...	Hills	Fodder for sheep and goats.
Gét	Salix acmophylla (willow).	...	...
Gidanguanjak.	...	Hills	Fodder for all animals except horses.
Giyáháp *Giyáháb*, Bl.	...	In wheat and barley fields.	An excellent fodder for cattle.
Gomázg ...	...	In plains ...	Fodder for cattle.
Gwan ...	Pirtacia Cabulica.	In Chágai and Khaisár hills.	Fruit eaten by people

CHAGAI.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Haiyarres ...	...	In plains ..	Cooling drink made by mixing the dried leaves with milk.
Hashsha, *Hashshag*. Bl.	...	In plains ...	Fodder for sheep goats and camels.
Haw ...	Cymbopogon Iwarancusa.	In hills	Fodder for cattle.
Héshark ...	...	Hilly tracts ...	Roots used as a drug for fever.
Hing, Hinge..	Ferula Asafœtida	Koh-i-Sultán and other hills.	Drug.
Hum ...	Periploca Aphylla.	Hills	Fodder for sheep and goats.
Husainbútau	...	In Mal	Fodder for goats, also used as a drug for fever and stomach ache.
Jaur... ...	Nerium odorum...	In hills and river beds.	A poisonous plant.
Jir, *Dranag*, Bl.	Artemisia ...	A wild bush found all over the District.	Fodder for sheep, goats and donkeys. Also used as fuel.
Kaj	Stipa ovaristida...	Hills	Fodder for cattle.
Kalágho ...	...	In Dák plain ...	Fodder for camels, sheep and goats.
Kalpora ...	Teucrium Stocksianum.	Hills ...	Fodder for sheep and goats.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Kándár ...	...	Hills ...	Fodder for cattle.
Kárawán-kush	Pterophyrum Olivieri.	In the skirts of hills.	Fodder for camels.
Káshum ...	Erianthus griffithii.	Hills ...	Fodder for cattle.
Kémár, *Kaimár*, Bl.	...	Found all over the District.	do.
Khákshír ...	...	Hill skirts or *dámán*.	Eaten green by sheep, goats and camels. Also eaten by poorer classes during scarcity.
Khamu ...	...	In sands and plains.	Fodder for camels, sheep and goats.
Kírgo ...	...	In sands ...	Fodder for camels, sheep and goats.
Kirri, *Gaz* Bl.	Tamarix Articulata (tamarisk).	In Mal. Khaisár and other river beds.	When green, serves as a fodder for camels; also used for fuel and making wattle.
Kirta ...	...	In salt lands ..	An evergreen plant used as fodder for all animals.
Kisánkur, *Ispantán*, Bl.	Peganum Harmala.	In plains ...	Seed used as a drug for stomach-ache; also used as incense to drive away evil spirits.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Kotor ...	Stocksia Brahuica.	In skirts of hills.	Fuel.
Kulkusht ...	...	In river beds or sandy soils.	Fodder for goats; also eaten mixed with *ata* by poorer classes.
Kunchito ...	...	Hills ...	Leaves used as a fomentation in cases of head-ache.
Labu ...	...	In plains ...	Fodder for camels, sheep and goats; also used as food by the poorer classes in times of scarcity.
Lahra ...	...	In plains ...	Fodder for camels, sheep and goats.
Lakatiombak.	...	In Dák lands ...	Fodder for cattle.
Maghér ...	Rumex vesicarius	In sandy plains...	When green, used as a vegetable, and also as fodder for cattle. The seed mixed with *ata* is made into bread.
Mazong ...	Gymnocarpus decandrum	Hills	Fodder for sheep and goats.
Mati... ...	...	In salt land near Kuchaki Cháh and Padag.	An ever-green plant which serves as fodder for camels, sheep and goats.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Mazh ...	...	In sand hills ...	An excellent fodder for horses and other animals.
Mungli ...	Orthonnopsis intermedia.	Nushki	Fodder for goats.
Murúabai ...	...	In the skirts of mountains.	Fodder for camels, sheep and goats; when green, it is also eaten by the poorer classes.
Nadag ...	...	In river beds ...	Used as a drug for gout and rheumatism.
Nal	Phragmites communis.	In mountains such as Rás Koh	The reed is used for the stem of *hukas* and also for the flutes (*nal*) played on by the Baloch shepherds.
Nariánband ..	...	Everywhere in plains.	Fodder for sheep, goats and camels.
Páchin Káh .	...	Hill torrents ...	Fodder for camels, sheep and goats.
Panérband ...	Withania Coagulans.	Hills	An evergreen plant.
Patak ...	...	...	...
Pidari ...	...	In the skirts of mountains.	A drug used to make cooling drink and also by the women for dressing the hair.
Pílgosh ...	Crambe Cordifolia	Hills.	Fodder for sheep and goats.

APPENDIX III—*contd.*

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Pímalak ...	Allium Rubelium	Sandy plains ...	Fodder for camels, sheep and goats.
Pissi ...	...	Hills	A thorny tree, the fruit of which is used as a drug for diarrhœa.
Pit	...	Plains and fields..	Fodder for camels, sheep and goats.
Pítruk ...	Scorzonera papposa.	In all hills ...	A fodder for sheep and goats; also eaten by the poorer classes.
Píunpulli ...	Matricaria lusiocarpa.	In Dák plain ...	Fodder for sheep and goats. The flower is used as a drug for fever.
Pochko ...	Althaea Ludwigii.	In skirts of hills..	Roots used as food by the nomads.
Pogh ...	...	In sandy plain ...	Fodder for camels, also used as fuel.
Puzho ..	Convolvulus microphyllus.	In sand hills ...	Fodder for all cattle.
Púrchink ...	Zizyphora clinopodioides.	In hills or the sides of big *kárézes*.	
Righit ...	Suaeda monoiea...	Found in salt lands.	Fodder for camels, sheep and goats.
Sagdaru ...	...	In sandy tracts...	Fodder for camels, sheep and goats.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Saréshko ...	Eremurus vehitinus.	Plains	Fodder for camels, sheep and goats.
Shénalo, *Shé-naluk*, Bl.	...	Hills	Fodder for sheep and goats.
Shinz ...	Alhagi camelorum.	Plains and fields..	Camel fodder.
Shitir ...	...	Hills	Root used for curing leather.
Shod ...	...	Hills	Roots used for washing clothes.
Simsúr ...	...	In salt soil ...	An excellent fodder for camels.
Siyahgargo...	Isatis Minora ...	Plains ...	Fodder for sheep and goats.
Sohrmard ...	...	Hills ...	do.
Sundum ...	Epilasia ammophila.	Skirts of hills ...	Fodder for all animals. Also eaten raw by nomads.
Tághaz ...	Haloxylon Ammodendron.	Plains ...	Fodder for camel throughout the year; also used as fuel.
Tarand ...	...	Skirts of hills ...	Fodder for sheep, goats and camels.
Trát ...	...	Plains ...	Fodder for camels, sheep and goats.

APPENDIX III—(*contd.*)

Name in Bráhui and Baluchi.	Scientific name.	Locality where found.	Brief remarks as to uses, etc.
Trúshko, *Trúshpako*, Bl.	Rumex vesicarius.	Hills ...	Fodder for sheep and goats.
Tusso ...	...	Skirts of hills ...	The dried flowers are used as a cure for gout.
Zampad ...	Koelpinia ...	Plains ...	Fodder for cattle. Also eaten by men.

Note.—When name of a tree, &c., in Baluchi differs from that in Bráhui, the former is printed in italics with the letters "Bl."

APPENDIX IV.

An alphabetical list of agricultural implements used in the Chágai District.

Name in Bráhui.	Explanation.
Aragh	A sickle.
Bél	A spade.
Chárshákh ...	Four pronged fork for winnowing.
Dal	A wooden spade worked by two men with a rope for making small embankments.
Dalli	A wooden spade for winnowing grain.
Dasta	Handle of the plough.
Dushákh... ...	Two pronged fork.
Jugh	A yoke.
Jughlu	Wedges in the yoke.
Kamér	A plough share.
Kén	A plank harrow.
Kodál	A mattock.
Langár	A plough.
Lashi	A sickle.
Máhla	A wooden log used as clod crusher.
Mushtuk... ...	The wooden pins placed in the "jugh" on either side of the neck of an ox while ploughing.
Pík	A wedge in the plough.

CHAGAI.

APPENDIX IV—(*contd.*)

Name in Bráhui.	Explanation.
Ramba	A weeding spud.
Sar shatínk ...	The shaft of a plough worked by oxen.
Sundh	A drill. Drilling.
Shatínk	The shaft of a plough worked by camels.
Tabar or tafar ...	An axe.
Zubánk	Shoe of the plough.

NOTE.—*Dasta* is *Dastag*, *Máhla*, *Máhlag* and *Zubánk*, *Zowáлk* in Baluc
In other cases the terms in Bráhui and Baluchi are the same.

APPENDIX V.

An Alphabetical list of agricultural, revenue and shepherds' terms used in the Chágai District.

Bráhui.	Baluchi.	Explanation.
Abúsi ...		The ripe ears of corn.
Ahd ...	Ahdígari ...	Wages in kind paid to artizans.
Ahdígir ...		Village artizan. See also *ustákár.*
Ahingar ...		Blacksmith. See *Lori.*
Alálau ...		Weaning time.
Alor ...	Dab ...	The refuse of the fodder after it has been left by the cattle. See *latár.*
Ambár ...		Granary.
Ambárchín...		Servants engaged to guard the granaries.
Angúro or Angúri.		Name applied to the corn when it first appears above the ground.
Arbáb ...		A Superintendent appointed to look after tenants.
Asiáb ...		A water mill.
Asiyáwán ...		A miller.
Bágh ...		A garden.
Bághícha ...		A small garden.
Bag-jat ...		A camel herd.
Band ...		A dam or embankment.
Batái ...		Division of crops.

APPENDIX V—*contd.*

Bráhui.	Baluchi.	Explanation.
Bazgar ...		Tenant, as distinguished from *khwázdár.*
Bégár ...		Forced labour.
Bilim ...		A rope with which lambs and kids a[re] tethered.
Bíring ...	Doshag ...	To milk.
Birwé ...	Géchin ...	Sieve.
Bog ...		Wheat or barley at an early stage.
Bogri ...		A piece of land given to a tenant or a *mul[lah]* free of rent for cultivation.
Bohál ...		Rent paid by tenant to landlord.
Burruk ...		Name given to green wheat.
Buz-gal ...	Buzgalah ...	A flock of goats.
Chhat ...		To sow seed broadcast.
Chakul ...		Small plot of cultivation on the hill-side.
Chapar (Tspar).	Used by Baréch only.	Weighted thorny hurdle used for threshin[g] grain.
Chashma ...		A spring.
Chén ...		Shearing sheep and goats.
Chénok ...		Shearer.
Chhér ...		Cleaning water channels in spring.
Chilko ...		Creeping plant.
Chond ...		Lucerne in its early stage.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Chúchuk ...		The second crop of *zurrat* which does not come to maturity.
Chughul ...	Géchin ...	A sieve.
Chur ..	Kaur ...	A small hill torrent.
Dabb ...		Stagnant water.
Dáchi ...		Female camel.
Dahyak ...		Name given to the "red" wheat which is usually sown in the District.
Dahika ...		Revenue paying land.
Daloi ...	Singoli ...	Sandy soil containing gravel.
Dámán ...	Dahmán ...	Stony land along the skirt of a hill.
Dánabandi ...		Appraisement of standing crops for fixing Government demands. See also *ijára*.
Daskand or dastkand.		Cultivation done by manual labour, as opposed to land prepared by the plough.
Dawár ..		A sheep pen.
Déru ...	Dénu ...	A milch sheep or goat formerly taken by the Sanjráni chief as a tax on flocks.
Dhaggi ...		A cow.
Dhor ...	Kaur ...	A hill torrent carrying flood water.
Dranzing ...	Dranzag ...	To winnow.
Drassum ...	Múd ...	Goat's hair.
Drosh ...		A cut made by flock-owners in a goat's ear as a distinguishing mark.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Droshi ..		A sheep or goat set apart for sacrifice.
Dukkál ...		Drought, also famine.
Dún... ...	Cháh ...	A well.
Gabb ...		Wheat or barley crops when the ears first begin to form.
Gab-o-khosha (also *khosha kash*).		Wheat or barley crops when the ears have formed, but are not yet ripe.
Galao-tumgh or mili.		Seed of melons.
Gar		A disease which attacks lucerne, *pálézes* and grapes.
Garat ...		Seed sown in dry crop lands without ploughing.
Gardu (or girdu).		A pole in the centre of the threshing floor around which the bullocks revolve.
Gari... ...		A skin for carrying butter.
Gárumpán ...	Gowál ...	Cowherd.
Gér		A sheep or goat pen.
Ghandu ...	Ghanda ...	A handful of grain.
Ghunj ...		A woollen blanket used for carrying fodder
Girik ...		A bundle of spun wool.
Govat ...		To thresh.
Guarg ...		A small embankment.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Gumána ...		The head or trial well of a *káréz.*
Gwála ...	Gwálagh ...	A big woollen sack.
Haq-i-chungi.	...	A cess or octroi, levied in Nushki at the rate of ½ *kása* per heap of grain.
Haq-i-kásgi ...	...	Wages for measuring grain. A cess levied in Nushki at the rate of 4 *kásas* per *khori* or heap of grain consisting of not less than one *kharwár* or 10 maunds in weight.
Haq-i-mál-kana.	...	Allowance paid to headmen for collecting revenue.
Haq-i-náib ...	...	Share due to *náib.* A cess levied in Nushki at one *kása* per *khorí* exceeding 10 maunds in weight.
Haq-i-náib kharch.	...	A cess levied in Nushki by the Khán's officials before the tahsíl was leased to British Government.
Haq-i-thappo.	...	Share due to official who sealed the various heaps of produce, payable at the rate of 1 *kása* per *khori* or heap.
Hashar ...		A system of co-operative labour in vogue in the villages.
Hashari ...		A labourer working under the *hashar* system.
Huch ...	Ushtur ...	A camel (male).
Huchkás ...	Ushtur pazhm	Camel's wool.
Ijára ...		Appraisement of standing crops for fixing Government revenue. See also *dánabandi.*

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Inám ...	Mwáphi ...	Revenue-free holdings.
Izak... ...		A skin used for churning milk.
Jallak ...		Spindle for wool spinning.
Jo ..		A water channel.
Joak ...		A small irrigation channel.
Johán or Jowán.	Kharman ...	A heap of threshed crop before grain separated.
Kad ...		Manure.
Kachh ...		Survey.
Karab ...		*Zurrat* stalks.
Káréz ...		Underground water channel.
Kárígar ...	Kárézkash..	A *káréz* digger.
Khar ...	GORánt ...	Ram.
Kharás ...	Gok ...	Bullock.
Khat kashi...		A custom by which a man sinks a new *ká* on another man's land on condition of g ting a share, generally one-half, in proprietorship both of land and water.
Khít ...	Hít ...	Green wheat or barley used as fodder.
Khosha ...	Hoshag ...	Ear of corn.
Khoshachín...	Hoshachín...	A gleaner.
Khún ...		Place in a house or tent set apart for bullo

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Khurrum ..		Grain pits.
Khushkáwa...	Khushkáwag	Cultivation on dry crop areas.
Khwázdár ...	Wázdár ...	Land owner.
Kishár ..		Cultivation.
Kot or Khori.		Small heaps of grain made at the time of *batái*.
Kúli ...		Earthen receptacles for storing grain.
Kur ...	Ramag ...	A flock.
Kurdah ...		Small plot of land.
Kurdahbast ..		Embanked fields on irrigated land.
Lábh ...	Dráo ...	Harvest.
Lái ...		Wages paid to reapers.
Láigir ...		Reapers.
Langár kanning.	Langár kanag.	Ploughing.
Latár ...	Dab ...	The refuse of the fodder left by cattle. See *alor*.
Lath ...		Embankment.
Lathband bazgar.		A tenant who acquires occupancy right by constructing embankments in dry crop areas.
Lori ...		Blacksmith. See *ahingar*.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Lor ...		A sheaf of corn.
Mahbatta ...		An enclosed field close to a village.
Máhlau ...		Crop sown at the proper season.
Malik ...		A village headman. Also name given to a village official appointed by the villagers to superintend the division of water and the maintenance of water channels.
Maliki ...		Remuneration paid to village headman for collecting Government demands, usually 5 per cent. See also *Haq-i-Malikána*.
Máliya ...	Gham ...	Government revenue demand.
Mattio daghár.		Soil which contains silt or *matt*.
Mázu ...		A wooden aqueduct. See also *tarnáwa*.
Mélh ...	Pas ...	Sheep.
Milk ...		Property in land.
Minjár ...		A heap of *bhúsa* plastered over with a coating of mud.
Mirás ...	Mírát ...	Ancestral land.
Mora ...		Bundle of dry lucerne.
Nam ...		First watering before the land is ploughed.
Nambúr ...	Súfa ...	Tunnel connecting wells of a *káréz*.
Náwar ...		A pool or lake formed by collection of rain water.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Nihál ...		Young trees.
Nokáp ...		A flood.
Páchálau ...		Crop sown late.
Palál ...		Wheat or barley stubble.
Paláli. ...		Land cleared of its crop.
Páléz ...		Generic term for cucurbitaceous crops.
Parghat ...		Second threshing as distinguished from *gowat.*
Patt... ...		Soft white soil.
Patwári ..		Village accountant.
Paurmál ...	Guạtmál ...	Ears of wheat withered by wind.
Pazhguati ...		Chaff.
Pug		Chopped straw (*bhúsa*).
Púi	Kirmi ...	Affected by *pu* insects.
Pujén ..		To clear land of shrubs etc.
Réko ...		Sandy soil.
Roína ...	Bránag ...	Open *kárez* channel.
Sáf		Crop of wheat or barley when the ears of corn have appeared.
Sarband ...		Wells of a *káréz*, the tops of which are covered.
Sargalah ...		The best fed camel, sheep or goat in a herd or flock.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Sarsáyah ...	Zakát ...	A quantity of grain given annually by each family to the village *mullá*.
Sauzbarg ...		The autumn crop.
Sauzwán ...	Sabzwán ...	A crop watcher.
Séb ...		Spun wool.
Shágirdána...		Share paid to miller's agent for grinding corn.
Sharíko-daghár or jamna daghár.	Shoríkiga daghár.	Undivided or common land.
Shíra ...		Half formed grain.
Shom. ...		First ploughing after harvest.
Shomprosh...		First watering of a crop.
Shwán ...		A shepherd.
Siáháp ...		Perennial water.
Símáz ...		A rope for drawing water out of the wells.
Sorag daghár	Sorai daghár.	Salt land.
Surkhi ...		Rust.
Súrsát ...		Supplies collected for Government purposes.
Taláp ...		A tank or pool in which *káréz* water is collected.
Tarnáwa ...	Mázú ...	Wooden aqueduct. See *mázu*.
Taruk ...		Unripe melon.

APPENDIX V—(*contd.*)

Bráhui.	Baluchi.	Explanation.
Thapodár ...		A Government official who watches the crops at the time of harvest.
Tinri ...		Cattle tax.
Trangar ...		A net for carrying *bhúsa.*
Tuk		The contributions paid to a *mullá, saiad* or shrine.
Tumgh ...		Seed.
Tungshán ...		The spring crop.
Ustakár ...		Village artizan. See also *ahdígir.*
Wal ...		Melon plants ; any creeping plants.
Zágh ...		A heap of grain when it has been cleaned.
Zah... ...	Guarag ..	A flock of lambs and kids.
Zank ...		Lambing season.
Zápán ...		A shepherd who tends young kids.
Zarkharído daghár	Zarkharya daghár.	Land acquired by purchase.
Zik		A skin for storing *ghí.*
Zoba ...		The shepherds wages given in kind.

NOTE.—Where the Baluchi name is not given, the word is the same.